

**PEER REVIEW
COORDINATING DRAFT**

**TASK ANALYSIS
FOR**

**ENHANCE PHYSICAL PROTECTION
(CRITICAL COMBAT FUNCTION 24)**

AS ACCOMPLISHED BY A BATTALION TASK FORCE

**PRIME CONTRACTOR
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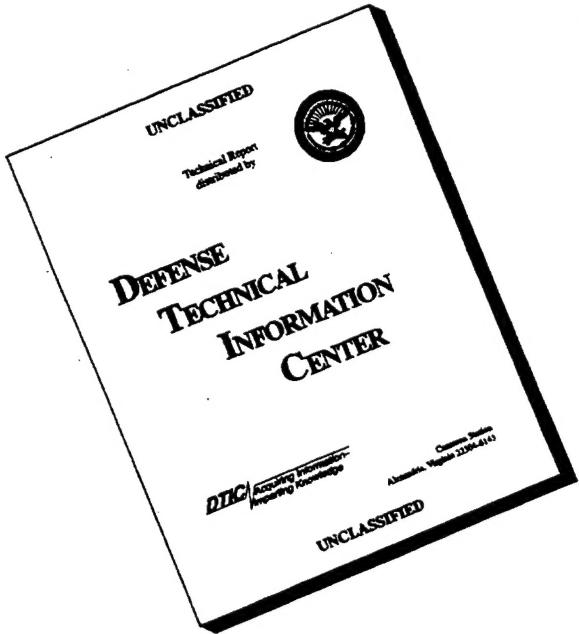
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**Task Analysis for Enhance Physical Protection
as Accomplished by a Battalion Task Force.
Critical Combat Function 24 (CCF 24)**

James Huffman

BDM Federal, Inc.

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13. ABSTRACT (Maximum 200 words) The purpose of CCF 24 is providing protection of friendly forces on the battlefield by enhancing the physical protection of personnel, equipment and weapons systems, and supplies. The outcomes include: <ol style="list-style-type: none"> 1) Task force constructs fighting position for personnel and weapons systems that provide protection from enemy fires without degrading systems capabilities. 2) Task force prepares positions for protection of personnel and material not in direct fire contact with enemy forces. 3) Task force employs equipment to protect personnel, systems, and material from environmental and NBC hazards. 4) Task force makes maximum use of enhancement of existing terrain to provide fighting and protective positions. 				
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ENHANCE PHYSICAL PROTECTION**

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PREFACE

This task analysis of **Enhance Physical Protection, Critical Combat Function 24** (CCF 24), is an intermediate product of the process of developing a training strategy for the CCF. The analysis reflects tasks, products, key participants, and processes in sequence necessary to enhance the physical protection of forces by a heavy battalion task force. Enhancing physical protection is a component of the combat function of mobility and survivability. "Survivability operations protect friendly forces from the effects of enemy weapons systems and from natural occurrences. Hardening of facilities and fortification of battle positions are active survivability measures. Nuclear, biological, chemical (NBC) defense measures are also key survivability operations." (FM 100-5, June 1993, at p. 2-14.)

CRITICAL COMBAT FUNCTIONS: *The integration of related players and tasks that represent a source of combat power. The synchronization of critical combat functions provides maneuver commanders at any echelon with a definable outcome that materially affects the battle.*

The battle phases PLAN, PREPARE, and EXECUTE relate to the entire battalion task force (TF) battle vice phasing for this particular CCF.

The process outlined in this CCF is never initiated from a standing start. However, for the purposes of analysis and portrayal, the function is depicted as beginning with the Higher Headquarters' OPORD for a specific mission; this analysis depicts the activities of CCF 24 from receipt of the brigade operations order through consolidation of the unit on the objective. It addresses subordinate echelon planning and task force preparation and execution tasks necessary to achieve the maneuver commander's intent. This CCF addresses tasks related to preparation and construction of fighting and protective positions in deliberate defensive positions and in hasty defenses undertaken at other times during the battle. In addition, it addresses other measures taken to avoid, or protect against, the effects of direct or indirect fires and nuclear, biological or chemical weapons. It also addresses prevention of, or protection against, the degrading effects of the physical environment.

The level of detail and the tasks were selected by the analyst as important to the analysis of the CCF from the perspective of the TF training strategy. Compliance with branch training strategies and proficiency at AMTP tasks and subtasks are recognized to be the responsibility of TF subordinate commanders. However, some tasks and subtasks are critical to TF success; these, then, are included in this analysis because the TF commander may wish to emphasize them in his training guidance.

In this analysis, a deliberate effort was made to identify specific task titles taken directly from the appropriate ARTEP Mission Training Plan (AMTP). Those task titles not taken from the MTP are derived titles that may apply to only part of a subtask or some other element of the AMTP; to multiple subtasks from different, but related, tasks; or to tasks that are not directly stated in the AMTP, but are implied by other tasks or by requirements in an applicable field manual (FM) or other related documents. While the wording of each task is sometimes a direct quote from the AMTP, generally, the wording of the tasks is an integration of tasks and requirements from the AMTPs, applicable FMs, and other related documents.

**INDEX OF
CRITICAL COMBAT FUNCTIONS**
Grouped By Battlefield Operating System (BOS)

INTELLIGENCE	(1) Conduct Intelligence Planning (2) Collect Information (3) Process Information (4) Disseminate Intelligence
MANEUVER	(5) Conduct Tactical Movement (6) Engage Enemy with Direct Fire and Maneuver
AIR DEFENSE	(16) Take Active Air Defense Measures (17) Take Passive Air Defense Measures
FIRE SUPPORT	(7) Employ Mortars (8) Employ Field Artillery (9) Employ Close Air Support (10) Conduct Electronic Collection and Jamming (11) Conduct Battlefield PsyOps (12) Employ Chemical Weapons (13) Conduct Counter Target Acquisition Operations (14) Employ Naval Gunfire (15) Coordinate, Synchronize and Integrate Fire Support
MOBILITY AND SURVIVABILITY	(21) Overcome Obstacles (22) Enhance Movement (23) Provide Countermobility (24) Enhance Physical Protection (25) Provide Operations Security (26) Conduct Deception Operations (27) Provide Decontamination
COMMAND AND CONTROL	(18) Plan for Combat Operations (19) Direct and Lead Unit During Preparation for the Battle (20) Direct and Lead Units in Execution of Battle
COMBAT SERVICE SUPPORT	(28) Provide Transport Services (29) Conduct Supply Operations (30) Provide Personnel Services (31) Maintain Weapons Systems and Equipment (32) Provide Health Services (33) Treat and Evacuate Battlefield Casualties (34) Conduct Enemy Prisoners of War (EPW) Operations (35) Conduct Law and Order Operations (36) Conduct Civil Affairs Operations (37) Provide Sustainment Engineering (38) Evacuate Non-combatants from Area of Operations (39) Provide Field Services

STRUCTURE OF CRITICAL COMBAT FUNCTIONS RELEVANT TO BATTALION TASK FORCE OPERATIONS

CRITICAL COMBAT FUNCTION: *The integration of related players and tasks that represent a source of combat power. The synchronization of critical combat functions provides maneuver commanders at any echelon with a definable outcome that materially affects the battle.*

- I. **Intelligence BOS** — The ways and means of acquiring, analyzing and using knowledge of the enemy, weather and terrain required by a commander in planning, preparing and conducting combat operations. These CCF are continuous throughout the planning, preparation and execution phases of the battle.
 1. **CCF (1) Conduct Intelligence Planning** — The development and coordination of information relative to the enemy, weather and terrain prior to and during the development of the unit OPORD; the planning to collect information from battlefield sources and to acquire intelligence from other headquarters. Focus of this CCF is the Intelligence Preparation of the Battlefield (IPB). This CCF addresses:
 - a. Reconnaissance and Surveillance plan.
 - b. Integrated threat templates (doctrinal; event; input to DST).
 - c. Terrain and Weather analysis.
 2. **CCF (2) Collect Information** — Obtaining information in any manner from TF elements and from sources outside the TF (e.g., higher headquarters; adjacent units): this CCF includes the tasks associated with managing the processes and activities necessary to collect battlefield information which may eventually be used to provide intelligence relative to the enemy, terrain and weather. This CCF addresses:
 - a. Information collected as a result of R & S plan.
 - b. Continuous information collection and acquisition from all sources.
 3. **CCF (3) Process Information** — The conversion of information into intelligence through collation, evaluation, analysis, integration and interpretation in a continual process. This CCF addresses:
 - a. Evaluation of threat information.
 - b. Evaluation of physical environment information.
 - c. Integration of intelligence information.
 - d. Development of enemy intentions.
 - e. Development of targeting information.
 - f. Preparation of intelligence reports.
 - g. Update of situational template.
 - h. Provision of battlefield area reports.
 4. **CCF (4) Disseminate Intelligence** — Transmission of information by any means (verbal, written, electronic etc.), from one person or place to another to provide timely dissemination of critical intelligence to all appropriate members of the combined arms team. This CCF addresses:

- a. The sending of processed intelligence in a timely manner to those on the combined arms team who can by its receipt, take appropriate actions to accomplish the mission. This includes intelligence on the enemy, terrain and weather.
- b. The sending of raw intelligence directly from those responsible for reconnaissance and surveillance to the commander should that raw intelligence be time sensitive (and not be subject to receipt and processing by intelligence analysts).
- c. Dissemination of battlefield reports.

II. Maneuver BOS — The employment of direct fire weapons, platforms and systems through movement and fire and maneuver to achieve a position of advantage in respect to enemy ground forces, in order to accomplish the mission. The direct fire weapons are: tank guns; BFV 25mm; anti-tank guns and rockets; attack helicopter guns and rockets; small arms; crew served weapons; directed energy weapons systems.

1. **CCF (5) Conduct Tactical Movement** — Position direct fire weapons systems relative to the enemy to secure or retain positional advantage making full use of terrain and formations. Tactical movement occurs when contact with the enemy is likely or imminent but direct fire engagement has not yet occurred. Units supporting maneuver units are included. This CCF addresses:
 - a. Subordinate element OPORD preparation and dissemination.
 - b. Preparation for movement.
 - c. Movement, mounted and dismounted; on and off road.
 - d. Closure of movement — tactical assembly area; tactical positions.
 - e. Navigation.
 - f. Force protection.
 - g. Air movement.
2. **CCF (6) Engage Enemy with Direct Fire and Maneuver** — Entering into ground combat with the enemy using direct fire and/or close combat in order to destroy the enemy or cause him to withdraw. This CCF relates only to those direct fire weapons systems associated with the Maneuver BOS. This CCF is initiated with the OPORD at the completion of the planning phase of the battle and includes all tasks associated with subordinate echelon planning, preparation and execution of the battle. This CCF addresses:
 - a. Subordinate element OPORD preparation and dissemination.
 - b. Preparation of engagement areas.
 - c. Rehearsals of battle plans.
 - d. Pre-combat prepare to fire checks.
 - e. Target acquisition.
 - f. Fire control and distribution.
 - g. Fratricide.
 - h. Conduct close combat.
 - i. Integration of direct fire with maneuver.
 - j. Control of terrain.
 - k. Prestocked ammunition.
 - l. Resupply during operations.
 - m. Maintenance during operations.
 - n. Consolidation and reorganization.

III. Fire Support BOS — The collective, coordinated, and synchronized use of target acquisition data, indirect fire weapons, armed aircraft (less attack helicopters) and other lethal and

non-lethal means against ground targets in support of maneuver force operations and to achieve the commanders intent and scheme of maneuver. The Fire Support BOS addresses these weapons: mortars; field artillery; close air support; electronic measures; naval gunfire.

1. **CCF (7) Employ Mortars** — Employment of mortars by the maneuver unit to place fires on the enemy or terrain to support the commander's concept and intent. This CCF initiates with the receipt of an OPORD by the maneuver commander and address those tasks required during the preparation and execution phases of the battle. This CCF addresses:
 - a. Subordinate element OPORD preparation and dissemination.
 - b. Prepare to fire checks.
 - i. Rehearsals.
 - c. Pre-combat checks.
 - d. Development of order to fire.
 - e. Tactical movement.
 - f. FDC operations.
 - g. Target engagements with illumination, smoke, HE.
 - h. Sustainment operations.
2. **CCF (8) Employ Field Artillery** — The ways and means employed by the maneuver unit to cause indirect artillery fires to be placed on the enemy or terrain to support the commander's concept and intent. This CCF initiates upon receipt of an OPORD by the maneuver commander and includes tasks performed during the preparation and execution phases of the battle. The Fire Support Coordination tasks necessary to integrate the field artillery and the maneuver units are the primary focus. This CCF does not address those field artillery tasks associated directly with those actions taken by the batteries of the artillery battalion in the conduct of their support mission such as FDC operations, gun operations, etc. This CCF addresses:
 - a. Fire Support — Maneuver unit rehearsals.
 - b. FSE operations during the preparation and execution phase of the battle.
 - c. FSO and FIST operations in coordination with their maneuver commander.
 - d. Positioning and movement within the maneuver unit sector or zone.
 - e. Indirect fire missions in support of maneuver commander's concept and intent.
 - f. Sustainment operations.
 - g. Indirect fire planning as battlefield METT-T change.
3. **CCF (9) Employ Close Air Support** — Planning for, requesting and employing armed aircraft (less attack helicopters) in coordination with other fire support (lethal and non-lethal) against ground targets in support of the maneuver force commander's concept and intent. This CCF addresses:
 - a. Air-ground attack requests.
 - b. Air space coordination and management.
 - c. Air Liaison Officer, Forward Air Controller; other Army Fire Support Coordination Officer; USN/USMC Bde Team Commander, SALT-O and FCT-O tasks that enable air to ground attacks.
4. **CCF (10) Conduct Electronic Collection and Jamming** — Actions taken to deny the enemy effective command, control and communications of his own tactical force in support of maneuver commander's concept and intent. This CCS includes jamming, deception, and collection.

5. **CCF (11) Conduct Battlefield PsyOps** — Conduct psychological activities as an integral part of combat operations to bring psychological pressure to bear on enemy forces and civilians under enemy control in the battle area, to assist in the achievement of tactical objectives in support of maneuver commander's concept and intent.
6. **CCF (12) Employ Chemical Weapons** — Employ chemical agents or other means to degrade enemy capabilities in support of maneuver commander's concept and intent.
7. **CCF (13) Conduct Counter Target Acquisition Operations** — Suppress (e.g. using smoke or dazzling illumination) or degrade enemy direct observation, optics, radar, sensors, electronic DF equipment, and imaging systems in support of maneuver commander's concept and intent.
8. **CCF (14) Employ Naval Gunfire** — The means and ends to provide naval gunfire in support of the maneuver commander's tactical operation.
9. **CCF (15) Coordinate, Synchronize and Integrate Fire Support** — Coordination of all fire support means in support of the maneuver commanders concept and intent. This CCF addresses the preparation and execution of tasks necessary to integrate the fire support detailed in the OPORD. The CCF integrates CCF 7-14 in support of maneuver commander's concept and intent.

IV. Air Defense BOS — The means and measures organic or assigned to the maneuver commander which when employed successfully will nullify or reduce the effectiveness of attack by hostile aircraft or missiles after they are airborne.

1. **CCF (16) Take Active Air Defense Measures** — Application of firepower to destroy enemy air targets. This CCF addresses the coordinating tasks which enable the maneuver commander to successfully employ any attached or assigned air defense weapons system as well as the tasks necessary to employ all organic weapons systems against enemy air targets. This CCF addresses:
 - a. Employment of Air Defense Artillery guns and missiles.
 - b. Employment of maneuver unit weapons systems such as small arms, automatic weapons, BFV 25 mm and TOW missiles, tank main gun against enemy air.
 - c. Airspace management.
 - d. Early warning.
 - e. Sustainment.
2. **CCF (17) Take Passive Air Defense Measures** — The protection of the maneuver force from enemy air by means other than weapons. This CCF will focus on the preparation and execution phases of the battle. This CCF addresses:
 - a. Early warning.
 - b. Dispersion.
 - c. Cover and concealment.
 - d. Air watch.
 - e. Deception.

V. Command and Control BOS — The way and means a maneuver commander exercises authority and direction over organic and assigned combat power in the accomplishment of the mission.

1. **CCF (18) Plan for Combat Operations** — The integration of all members of the combined arms team in the coordinated development of the maneuver unit Operations Order which will guide the activities of the combined arms team in conducting combat operations to accomplish assigned missions. The product/outcome of this CCF is a briefed, understood OPORD. This CCF addresses:
 - a. Receipt and analysis of higher HQ OPORD.
 - b. Issuance of Warning Order.
 - c. Restated mission statement.
 - d. Commander's estimate process/troop leading procedures.
 - e. Commander's guidance.
 - f. Mission analysis (includes course of action development).
 - g. Decision brief to commander.
 - h. Development of a synchronized OPORD.
 - i. Reproduction and distribution of OPORD to all participants.
 - j. Briefing of OPORD; understanding of order by participants.
 - k. FRAGO planning and issue.
2. **CCF (19) Direct and Lead Unit during Preparation for the Battle** — The ways and means to prepare combined arms task force for the battle so that the combined arms task force is ready to support the maneuver commander's concept and intent. This CCF addresses:
 - a. Commander's activities.
 - b. Communicating information.
 - c. Briefbacks and backbriefs.
 - d. Rehearsals.
 - e. Management of the means of communicating information.
 - f. Maintaining and updating information and force status.
 - g. Managing information distribution.
 - h. Decisions to act or change ongoing actions.
 - i. Confirming IPB through the reconnaissance effort.
 - j. Determining actions to implement decisions.
 - k. Providing command presence.
 - l. Maintaining unit discipline.
 - m. Synchronizing tactical operations (e.g., execution matrix DST).
 - n. TOC operations (e.g., staff integration and battle tracking).
 - o. Continuity of command.
 - p. Second in command (2IC responsibilities).
 - q. Continuous and sustained operations.
 - r. Communications (e.g., planning, installation and operation of system, management, site selection).
3. **CCF (20) Direct and Lead Units in Execution of Battle** — The ways and means to command and control in the combined arms task force execution of the battle plan (engaging the enemy in battle) to accomplish the maneuver commander's concept and intent. This CCF addresses:
 - a. Directing the conduct of the battle.
 - b. Issue orders.
 - c. Command presence.
 - d. Information distribution.
 - e. Decide on need for action or change.
 - f. Maintaining unit discipline.
 - g. Synchronizing tactical operations.

- h. TOC operations (includes CP displacement, security, survivability).
- i. Continuity of command (e.g., C2 redundancy).
- j. Second in command (2IC) responsibilities.
- k. Continuous and sustained operations.
- l. Consolidation and reorganization.

VI. Mobility and Survivability BOS — The ways and means of the force that permit freedom of movement, relative to the enemy, while retaining the task force ability to fulfill its primary mission as well as the measures the force takes to remain viable and functional by protection from the effects of enemy weapons systems and natural occurrences.

1. **CCF (21) Overcome Obstacles** — Enabling the maneuver force to maintain its mobility by removing or clearing/reducing natural and man-made obstacles. This CCF will initiate after receipt of the OPORD and address subordinate echelon planning as well as task force preparation and execution tasks necessary to achieve the maneuver commander's concept and intent. This CCF addresses:
 - a. Breach obstacle. Clearing a path or lane for personnel and equipment through a battlefield obstacle.
 - b. Cross gaps. Passing through or over any battlefield terrain feature, wet or dry, that is too wide to be overcome by organic/self bridging.
2. **CCF (22) Enhance movement** — Provision of adequate mobility for the maneuver unit in its area of operations. This CCF addresses:
 - a. Construction and repair of combat roads and trails.
 - b. Construction or repair of forward airfields.
 - c. Facilitating movement on routes. (This includes control of road traffic and control of refugees and stragglers.)
 - d. Tracking status of routes.
 - e. Host nation support.
3. **CCF (23) Provide Countermobility** — Delaying, channeling, or stopping offensive movement by the enemy consistent with the commander's concept and intent by enhancing the effectiveness of friendly direct and indirect weapons systems. This CCF addresses:
 - a. Emplacement of mines and complex obstacles.
 - b. Digging tank ditches.
 - c. Creation of road craters with explosives.
 - d. Terrain enhancement.
4. **CCF (24) Enhance Physical Protection** — Providing protection of friendly forces on the battlefield by enhancing the physical protection of personnel, equipment and weapons systems, and supplies. This CCF addresses:
 - a. Construction of fighting positions.
 - b. Preparation of protective positions.
 - c. Employment of protective equipment.
5. **CCF (25) Provide Operations Security** — Denying information to the enemy about friendly capabilities and intentions by identifying, controlling, and protecting indicators associated with planning and conducting military operations. This CCF addresses:

- a. Analysis to determine key assets and threats to them.
- b. Cover and concealment.
- c. Camouflage.
- d. Noise and light discipline.
- e. Counter reconnaissance.
- f. Smoke/obscurants.
- g. Physical security measures.
- h. Signal security.
- i. Electronic security.

6. **CCF (26) Conduct Deception Operations** — Taking actions to mask the real objectives of tactical operations in order to delay effective enemy reaction. This CCF addresses:

- a. Physical deception.
- b. Electronic deception.

7. **CCF (27) Provide Decontamination** — Making any person, object or area safe by absorbing, destroying, neutralizing, making harmless or removing chemical or biological agents, or by removing radioactive material. This CCF addresses:

- a. Decontamination of individual soldiers and equipment.
- b. Decontamination of weapon systems and supplies.
- c. Hasty and deliberate decontamination.

VII. Combat Service Support BOS — The support, assistance and service provided to sustain forces, primarily in the area of logistics, personnel services and health services.

1. **CCF (28) Provide Transport Services** — Providing or coordinating for transportation which will assure sustainment support operations in support of the maneuver commander. Upon receipt of an OPORD, this CCF addresses preparation and execution tasks necessary to achieve transportation support of the maneuver force. This CCF addresses:

- a. Movement of cargo, equipment and personnel by surface or air.
- b. Loading, transloading and unloading material and supplies.

2. **CCF (29) Conduct Supply Operations** — Providing the items necessary to equip, maintain and operate the force during the preparation and execution phases of the battle. This CCF addresses:

- a. Requesting, receiving, procuring, storing, protecting, relocating and issuing supplies to the specific elements of the force.
- b. Providing munitions to weapons systems.
- c. Providing fuel and petroleum products to equipment and weapons systems.
- d. Reporting status.

3. **CCF (30) Provide Personnel Services** — Management and execution of all personnel-related matters to sustain the force. This CCF addresses:

- a. Personnel Administrative Services.
 - 1) Replacement, casualty reporting.
 - 2) Awards and decorations.

- 3) Postal Operations.
 - 4) Promotions, reductions.
- b. Financial services.
- c. Unit Ministry team.
- d. Legal.
- e. Public Affairs.
- f. Reporting personnel status.
- g. Preservation of the force through safety.
- h. Management of stress.

4. **CCF (31) Maintain Weapons Systems and Equipment** — Preservation and repair of weapons systems and equipment. This CCF includes the provision of repair parts and end items to all members of the combined arms team before, during and after the battle. Included also is doctrinal echeloning of maintenance (organization, DS, GS). This CCF addresses:

- a. Preventative Maintenance.
- b. Recovery.
- c. Diagnosis, substitution, exchange, repair and return of equipment and weapons systems to the combined arms force.
- d. Reporting status.

5. **CCF (32) Provide Health Services** — Performance, provision or arrangement for health services regardless of location, to promote, improve, conserve or restore the mental or physical well-being of individuals or groups. This CCF addresses

- a. Preventive medicine.
- b. Field sanitation.

6. **CCF (33) Treat and Evacuate Battlefield Casualties** — Application of medical procedures on battlefield casualties beginning with "buddy aid" through trained medical personnel. The CCF includes movement of casualties from the forward edge of the battlefield back to division-level medical facilities. This CCF addresses:

- a. Triage of battlefield casualties.
- b. Treatment and movement of casualties to rear (medevac).
 - 1) Identification of levels of care and locations.
 - 2) Synchronization and coordination of movement of medical facilities to ensure continuity of care.
 - 3) Establishment and maintenance of communications with redundant means.
 - 4) Rehearsals.
 - 5) Resupply.
- c. Evacuation:
 - 1) Ground ambulance.
 - 2) Aero medevac.
 - 3) Non-standard evacuation.
- d. Handling and processing the remains of soldiers who have died of wounds.
- e. Reporting status.

7. **CCF (34) Conduct Enemy Prisoners of War (EPW) Operations** — The collection, processing, evacuation and safeguarding of enemy prisoners of war. This CCF addresses:

- a. Collecting and evacuating EPW.
- b. Searching, segregating, safeguarding, silencing, and rapid rearward movement of EPW.

8. **CCF (35) Conduct Law and Order Operations** — Enforcement of laws and regulations and maintenance of units and personnel discipline.
9. **CCF (36) Conduct Civil Affairs Operations** — Conduct of those phases of the activities of a tactical commander which embrace the relationship between the military forces and civil authorities, and the citizens in a friendly or occupied country or area when U.S. military forces are present.
10. **CCF (37) Provide Sustainment Engineering** — The repair and construction of facilities and lines of communication. This CCF addresses:
 - a. Rear area restoration.
 - b. Construction and maintenance of lines of communication (roads, railroads, ports, airfields).
 - c. Construction support:
 - 1) Marshaling, distribution and storage facilities.
 - 2) Pipelines.
 - 3) Fixed facilities.
 - 4) Drill wells.
 - 5) Dismantlement of fortifications.
11. **CCF (38) Evacuate Non-combatants from Area of Operations** — The use of available military and host-nation resources for the evacuation of US forces, dependents, US government civilian employees, and private citizens (US and other). This CCF addresses:
 - a. Medical support.
 - b. Transportation.
 - c. Security.
 - d. Preparation of temporary shelters.
 - e. Operation of clothing exchange facilities.
 - f. Operation of bathing facilities.
 - g. Graves registration.
 - h. Laundry.
 - i. Feeding.
12. **CCF (39) Provide Field Services** — Performance of service logistics functions by and for Army elements in the field. This CCF addresses:
 - a. Clothing exchange.
 - b. Bathing facilities.
 - c. Graves registration.
 - d. Laundry and clothes renovation.
 - e. Bakeries.
 - f. Feeding (rations supply, kitchens).
 - g. Salvage.

CCF 24
ENHANCE PHYSICAL PROTECTION
OUTCOMES AND PURPOSE

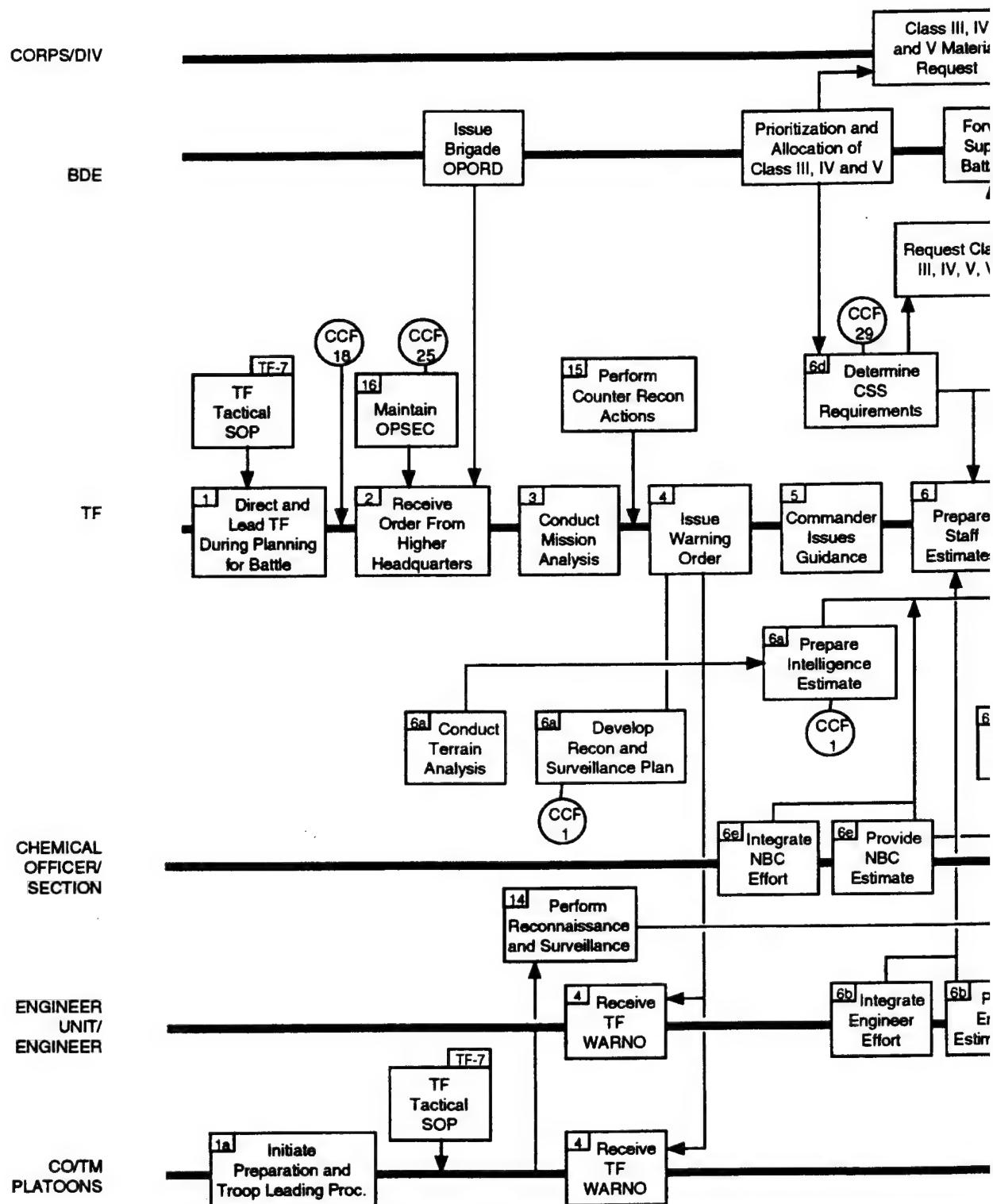
OUTCOMES

1. Task force constructs fighting positions for personnel and weapons systems that provide protection from enemy fires without degrading systems capabilities.
2. Task force prepares positions for protection of personnel and materiel not in direct fire contact with enemy forces.
3. Task force employs equipment to protect personnel, systems, and materiel from environmental and NBC hazards.
4. Task force makes maximum use of enhancement of existing terrain to provide fighting and protective positions.

PURPOSE

Providing protection of friendly forces on the battlefield by enhancing the physical protection of personnel, equipment and weapons systems, and supplies.

TASK FLOW BY TA

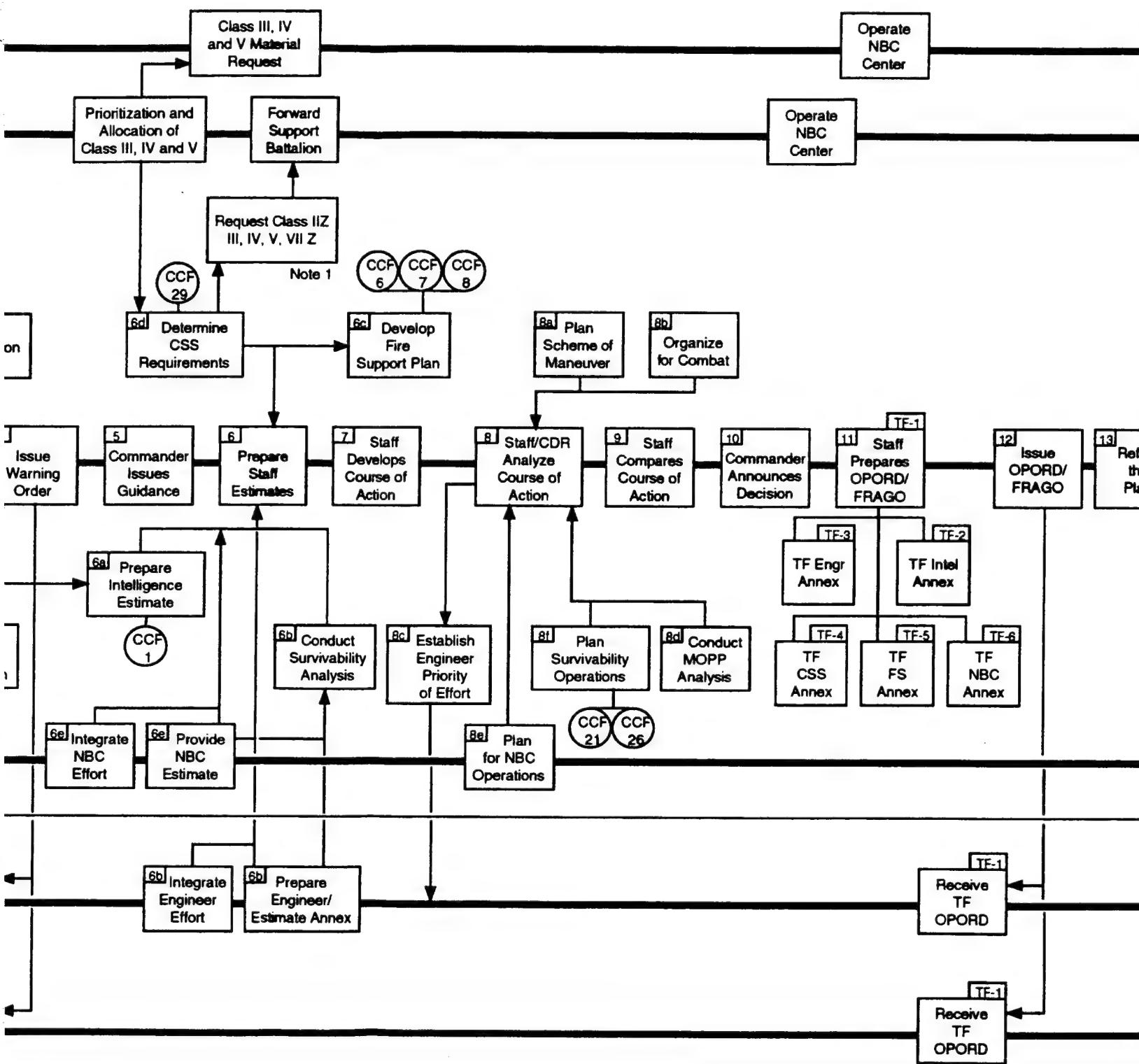


Note 1: Classes IIIZ and VIIIZ are chemical sub-

CCF (outside) Input or Output
(inside) Task

TASK FLOW BY TASK FORCE BATTLE PHASE PLAN

CCF 24 — Enhance Phys

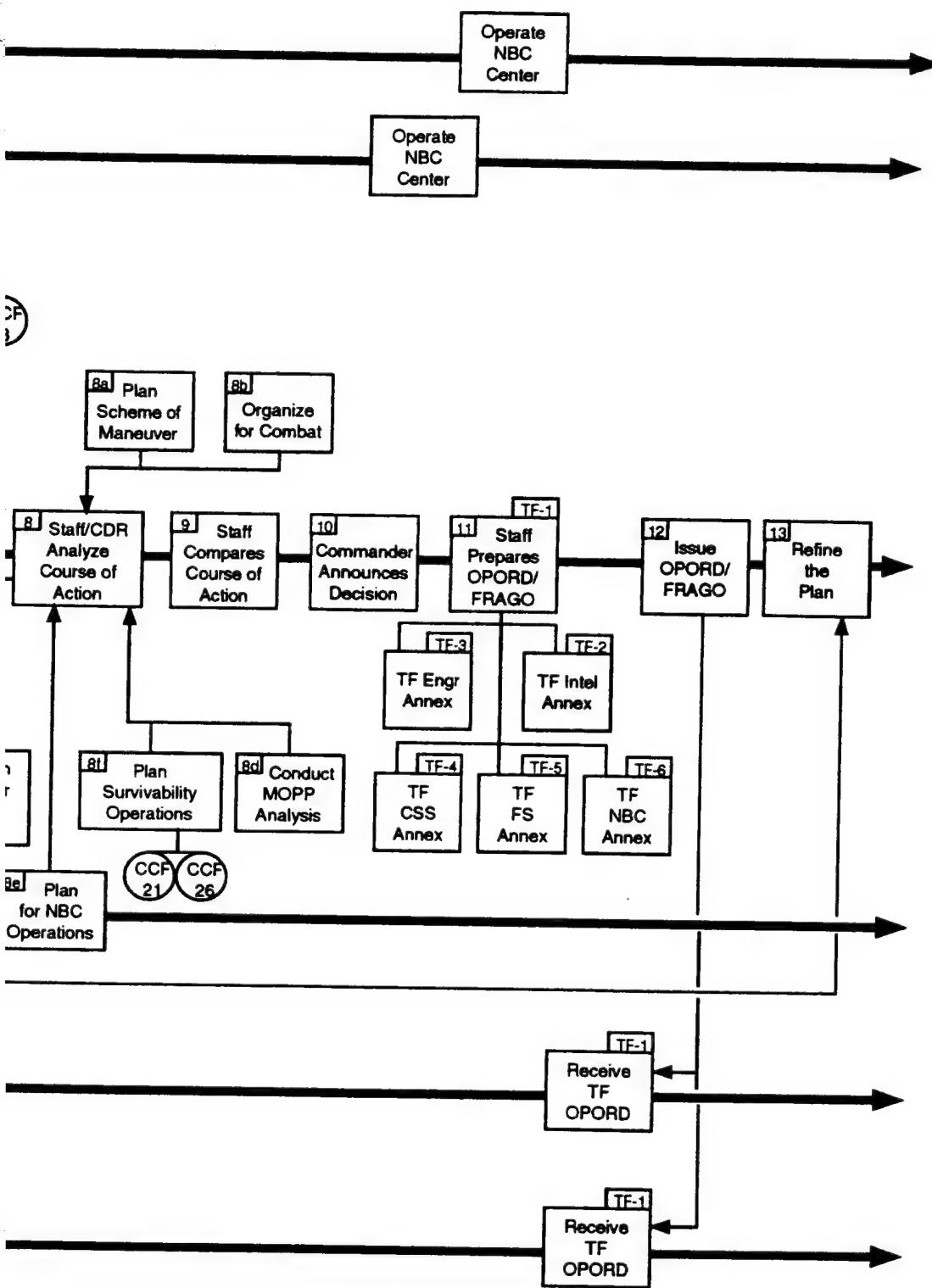


Note 1: Classes IIIZ and VIIIZ are chemical supplies and equipment.

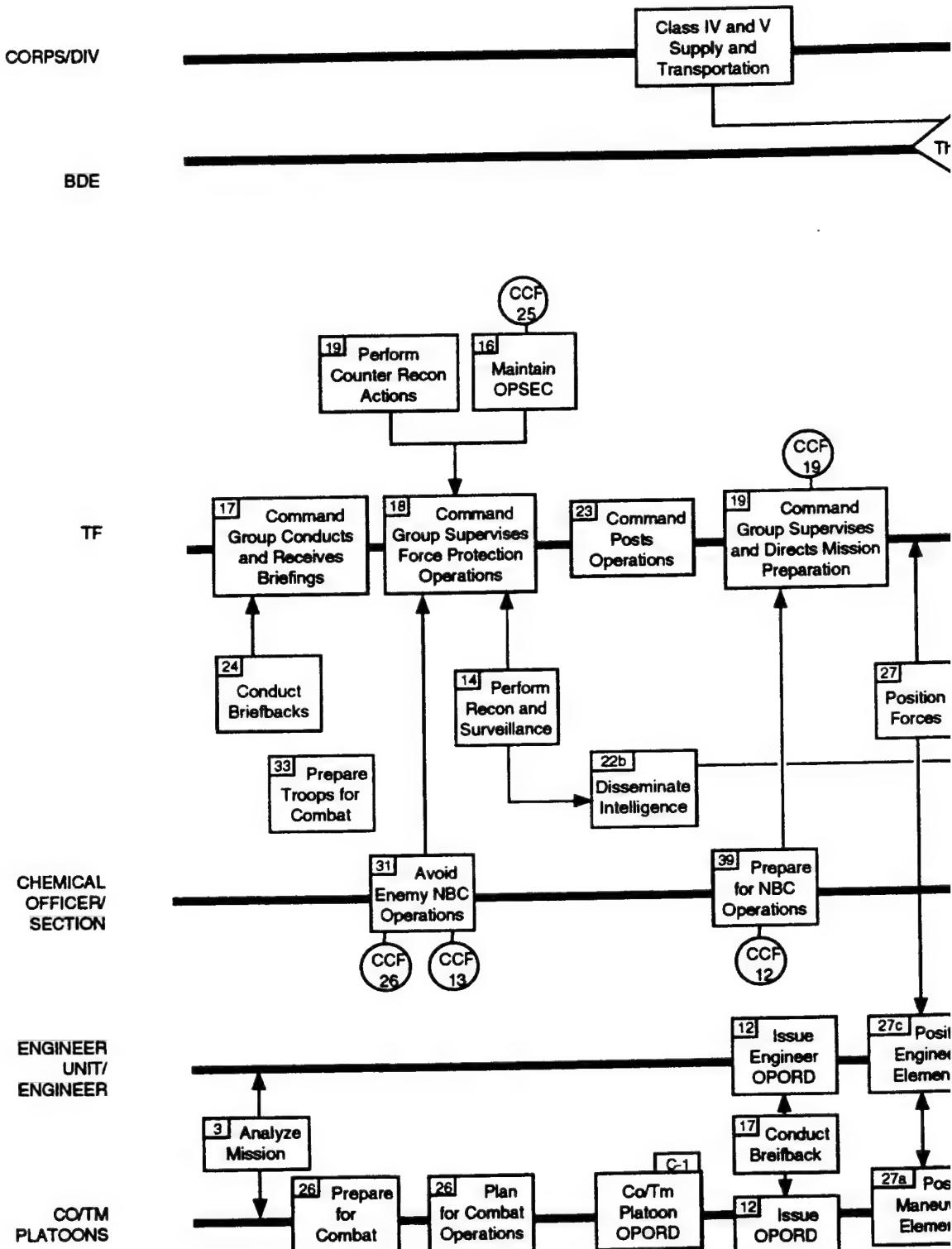
November 10, 1993

BATTLE PHASE

CCF 24 — Enhance Physical Protection



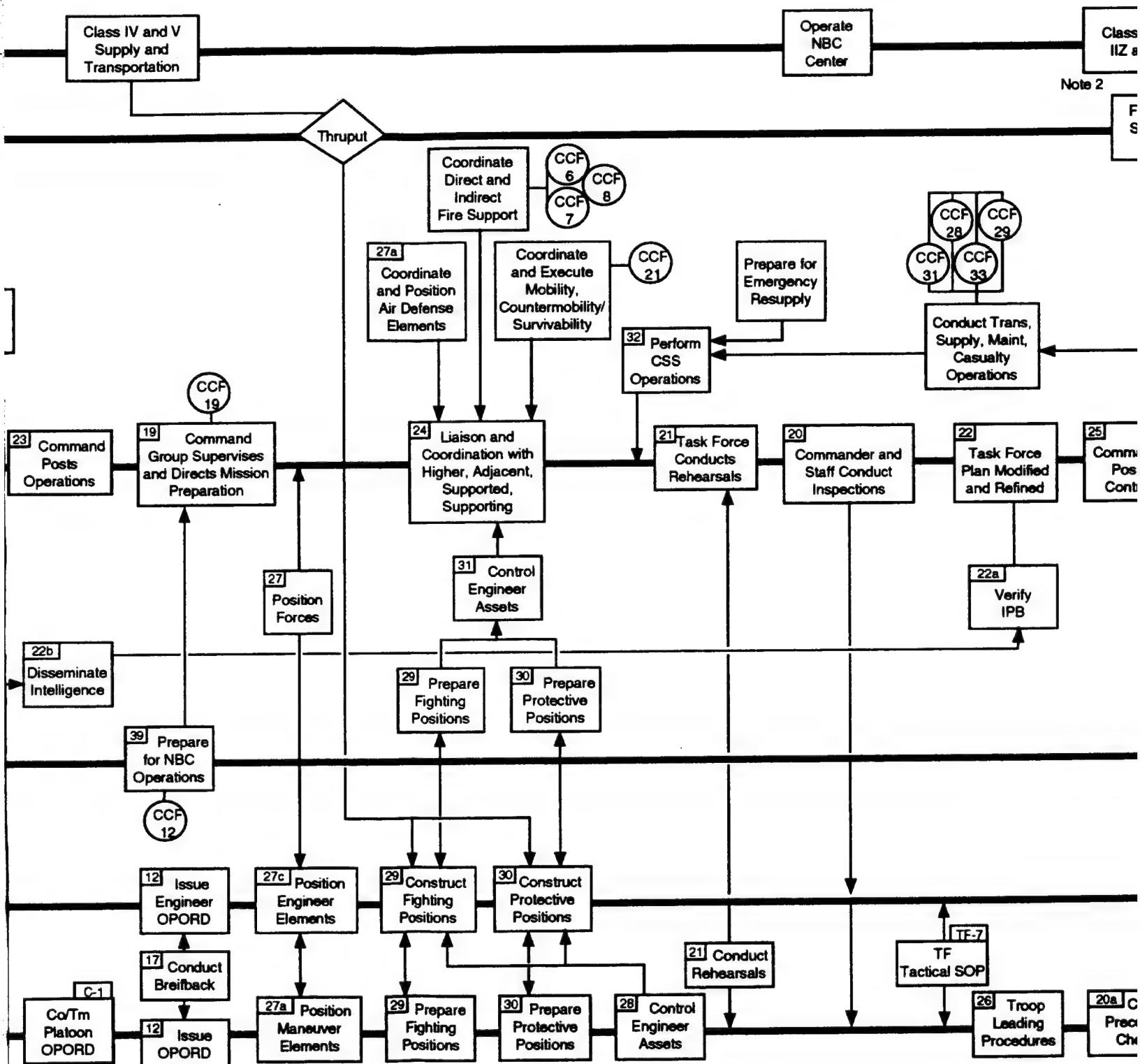
TASK FLOW I



Note 2: Classes IIIZ and VIIIZ are c

TASK FLOW BY TASK FORCE BATTLE PHASE PREPARE

CCF 24 — Enhanc

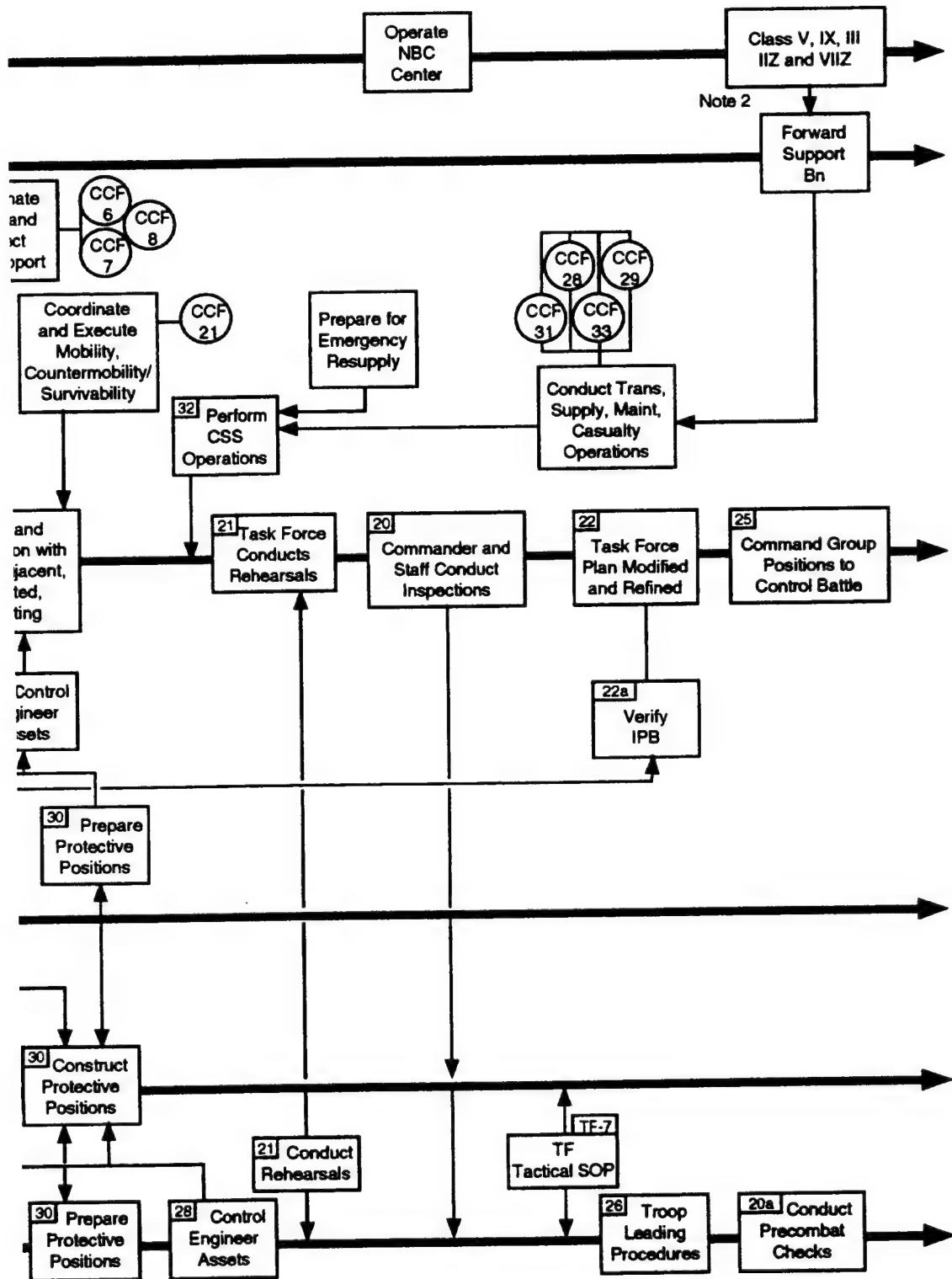


November 23, 1993

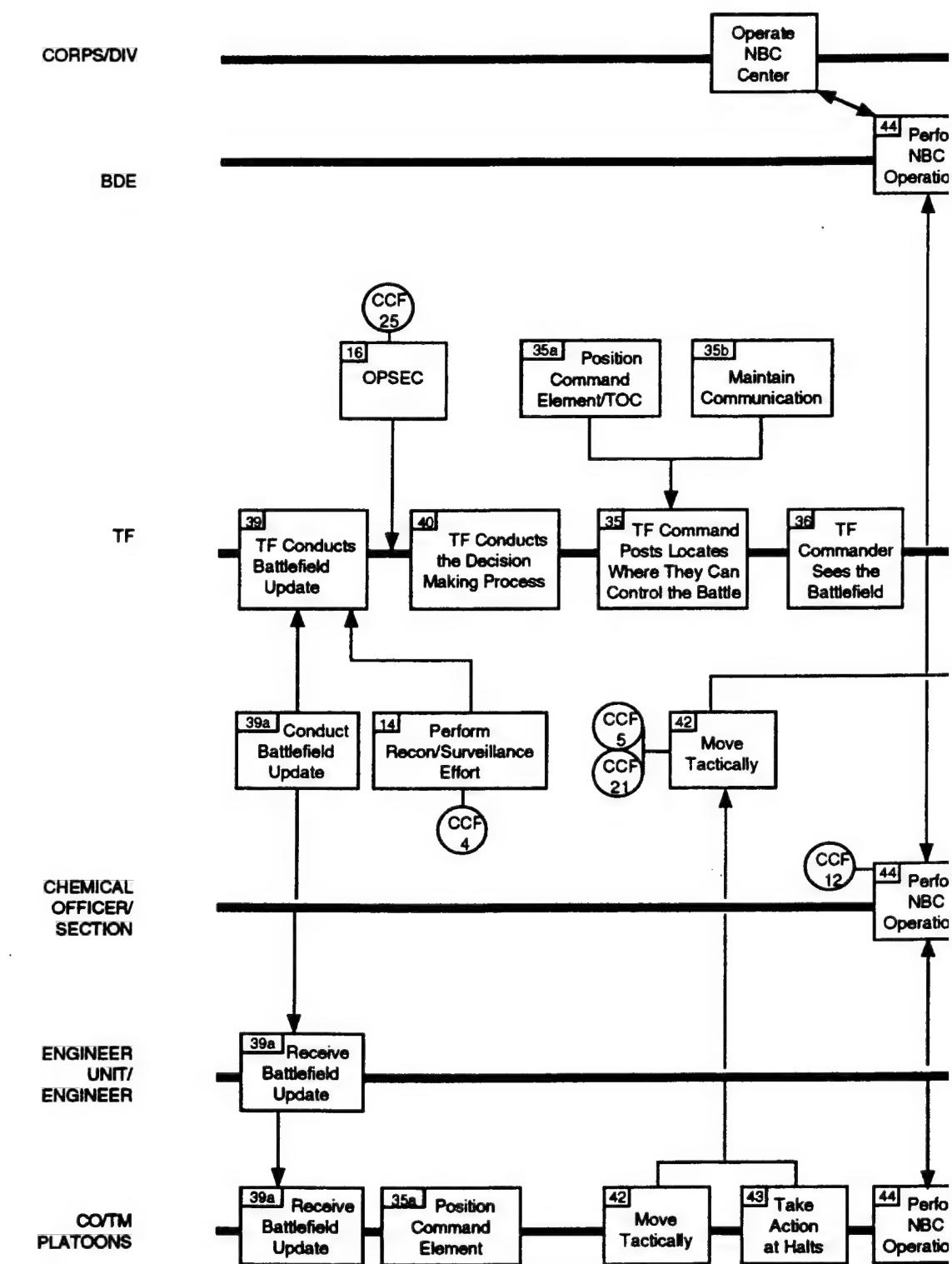
Note 2: Classes IIIZ and VIIIZ are chemical supplies and equipment.

FORCE BATTLE PHASE ARE

CCF 24 — Enhance Physical Protection



November 23, 1993

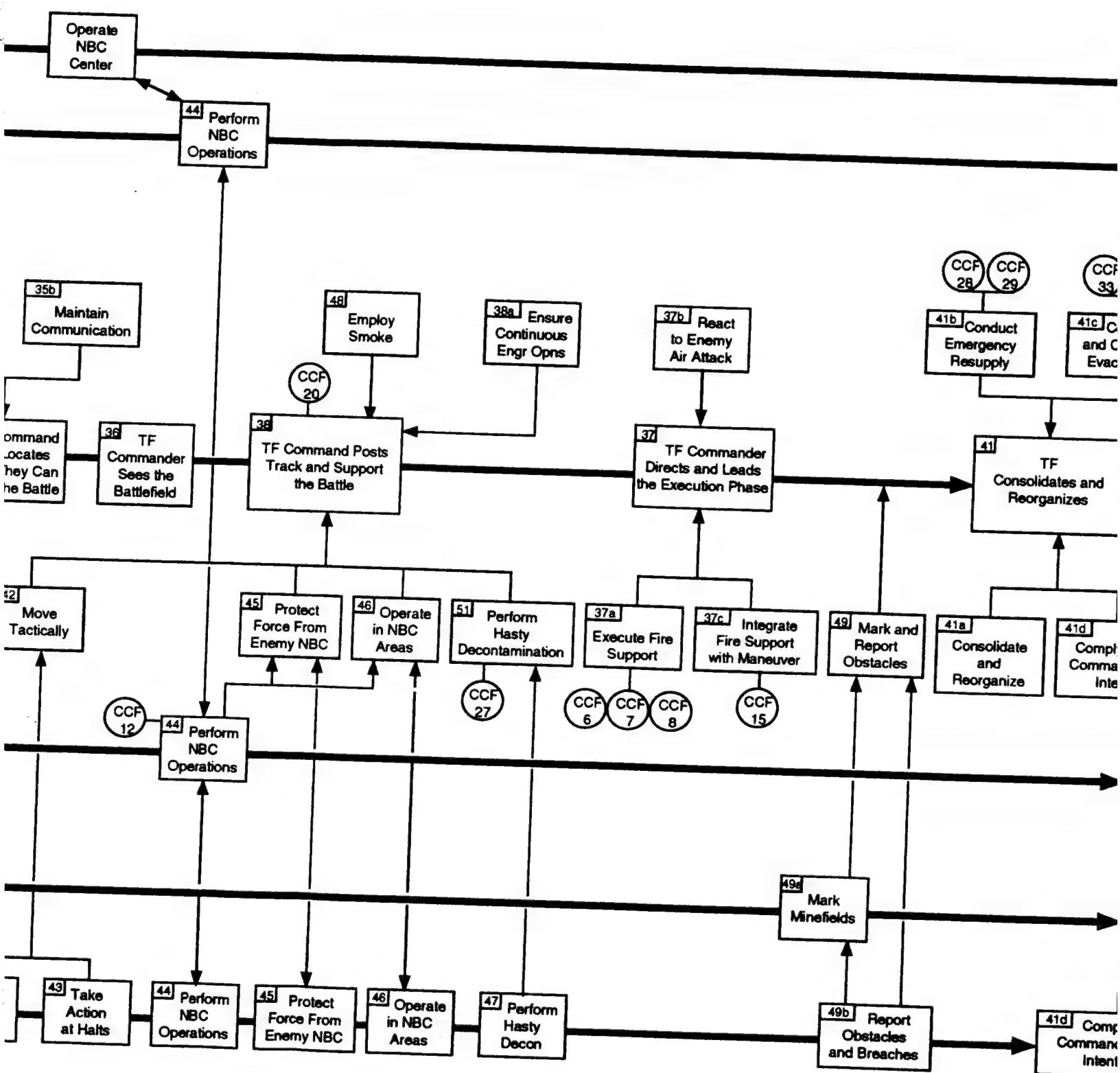


CCF

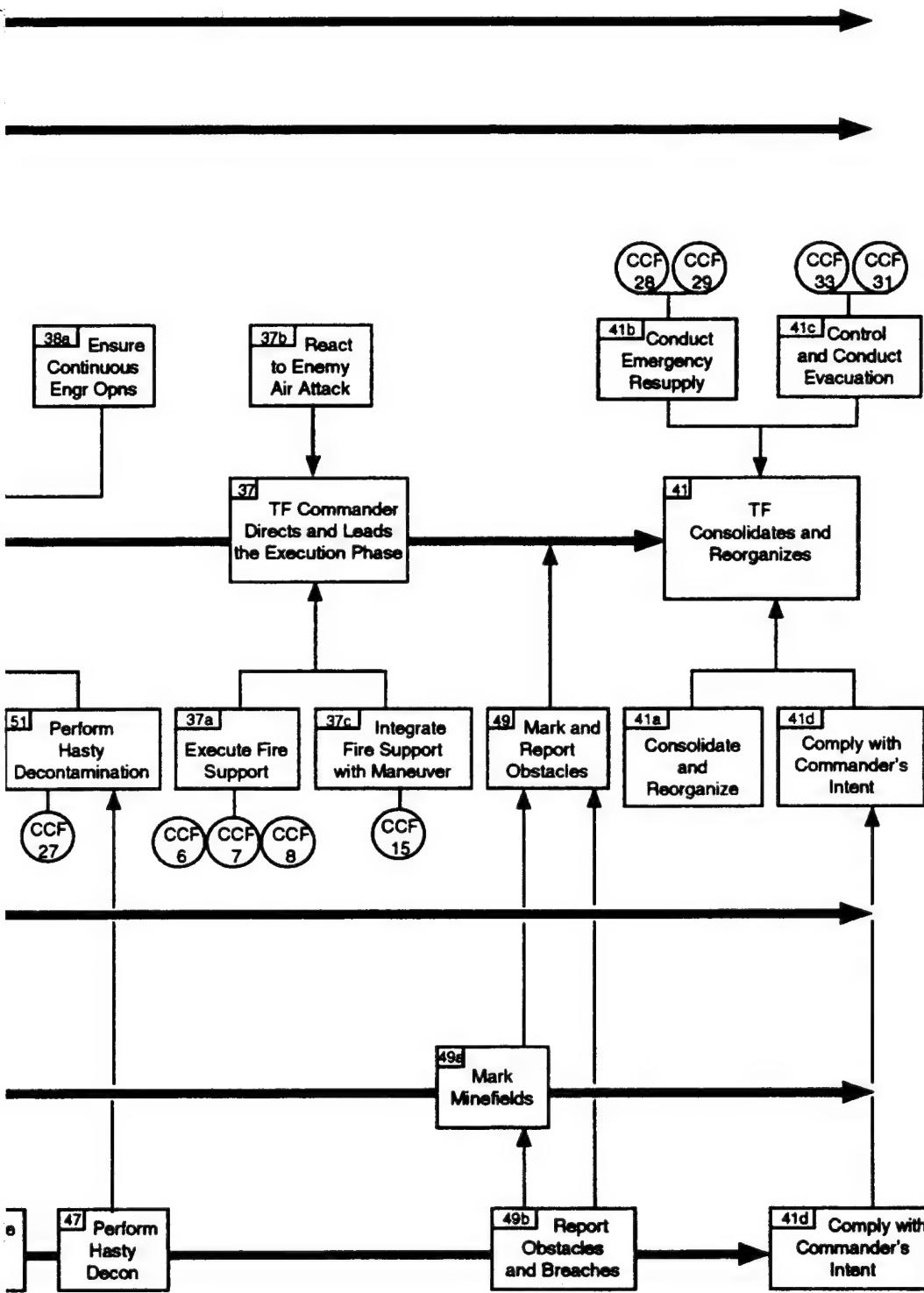
(outside) Input or Output
(inside) Task

TASK FLOW EXECUTE

CCF 24 — Enhance Physical



CCF 24 — Enhance Physical Protection



OTHER CCF WHICH INTERACT WITH CCF 24

<u>CCF #</u>	<u>TITLE</u>	<u>LOGIC</u>
CCF 1	Conduct Intelligence Planning	Knowledge of weather, enemy and terrain gained from completed intelligence products is necessary for identification and selection of potential locations for fighting and protective positions.
CCF 4	Disseminate Intelligence	Constantly updated, detailed and accurate knowledge of enemy situation required by commanders at all levels to allow refinement of protective measures taken, and to confirm or deny suitability of locations identified.
CCF 5	Conduct Tactical Movement	Required for movement to avoid battlefield hazards or to occupy fighting and protective positions.
CCF 6	Engage Enemy with Direct Fire and Maneuver	Protective positions required for CCF 6 is necessary to destroy or suppress enemy weapons systems, thereby enhancing friendly protection.
CCF 7	Employ Mortars	TF controlled source of tactical smoke to screen friendly forces from enemy observation and acquisition. Locations of mortars necessary for position preparation.
CCF 8	Employ Field Artillery	Required to suppress enemy positions with indirect fire and to provide smoke. Locations and activities of artillery necessary for planning and execution of position preparation.
CCF 12	Employ Chemical Weapons	Necessary to counter enemy chemical capabilities by acting as a deterrent to the enemy's use of chemical weapons. Protective measures also required for friendly employment of chemical weapons.
CCF 13	Conduct Counter Target Acquisition	Integral part of protecting personnel through active Operations avoidance measures. Needed to degrade and deny the enemy the ability to acquire friendly personnel, weapons systems or materiels targets.
CCF 15	Coordinate, Integrate and Synchronize Fire Support	Fire support assets under TF control managed and directed to provide obscuration fires (smoke) to protect the force.

<u>CCF #</u>	<u>TITLE</u>	<u>LOGIC</u>
CCF 18	Plan for Combat Operations	Planning for physical protection of the force is an integral, and critical, part of overall combat planning. Protection must be planned for all command posts.
CCF 19	Direct and Lead Unit During Preparation for the Battle	Leadership and supervision required to insure adequate preparation and construction of fighting and protective positions and preparation for other battlefield hazards. Major part of protective effort conducted during preparation.
CCF 20	Direct and Lead Units in Execution of Battle	Leadership and direction are required for proper utilization of protective measures and equipment and movement into and out of positions during execution of battle. Changes in tactical situation during execution of battle may change chemical vulnerability and MOPP analysis, requiring protective measure decisions.
CCF 21	Overcome Obstacles	Overcoming obstacles involves a high threat of force destruction and requires extraordinary physical protection measures for force protection.
CCF 25	Provide Operations Security	Concealing preparations, locations, and operations from enemy observation or detection is a key factor in the avoidance method of protection against enemy NBC weapons employment. Effectiveness of protective positions is enhanced if their presence or location is unknown to the enemy.
CCF 26	Conduct Deception Operations	Deceiving the enemy as to friendly locations and activities denies him the ability to accurately acquire and engage friendly forces.
CCF 27	Provide Decontamination	Necessary to avoid degradation due to continued operations in MOPP and the possibility of casualties from equipment failure or exhaustion.
CCF 28	Provide Transport Services	Transport services are required for movement of equipment, materiel, and supplies needed for position preparation. Transportation is required to maintain the required levels of chemical protective equipment and supplies.
CCF 29	Conduct Supply Operations	Adequate supplies must be forecasted and on hand to support the use of protective equipment and the construction of fighting and protective positions. Continuous resupply of chemical protective equipment and supplies necessary to maintain MOPP posture, once chemical weapons introduce.

<u>CCF #</u>	<u>TITLE</u>	<u>LOGIC</u>
CCF 31	Maintain Weapons Systems and Equipment	Maintenance and operational status of weapons systems and earth moving equipment is critical to construction and utilization of fighting and protective positions. Protective measures may be required to allow evacuation and maintenance of contaminated equipment.
CCF 33	Treat and Evacuate Battlefield Casualties	Protective measures for medical personnel and aid stations are necessary once NBC weapons have been introduced and contaminated patients are being received. Medical personnel must be prepared to operate in contaminated areas.

CCF 24
KEY PARTICIPANTS BY TASK

<u>PLANNING TASKS</u>	<u>KEY PLAYERS</u>
1. Direct and Lead Task Force During Planning for the Battle	
a. Initiate preparation and troop leading procedures	TF Cdr, S3, Co/Tm Cdrs, Subordinate Unit Cdrs
2. Receive Order From Higher Headquarters	TF XO, S3 Rep., S2 Rep.
3. Conduct Mission Analysis	All combined arms team
4. Issue the Warning Order	Bde Cdr/S3, TF Cdr/S3, Co/Tm Cdrs, Sep Plt Ldrs
5. Commander Issues Guidance	TF Cdr, Staff
6. Prepare Staff Estimates	
a. Conduct terrain analysis Prepare intelligence estimate Develop reconnaissance and surveillance plan	Bde S2, TF S2, Engr, CMLO Bde S2, TF S2 TF Cdr, S2/S3, Engr, CMLO
b. Integrate engineer effort Conduct survivability analysis Prepare engineer estimate/annex	S2, S3, S4, Engr, FSO TF S2, S3, Engr, CMLO TF S3, Engr
c. Develop fire support plan	TF Cdr, S3, FSO, Bde FSO, Co/Tm Cdrs, FISTs
d. Determine CSS requirements	TF XO/S1/S4, Co/Tm Cdrs/XO/1SG, Engr, CMLO, Sep Plts, attached units
e. Integrate NBC effort Provide NBC estimate	S2, S3, S4, CMLO, FSO TF S3, CMLO
7. Staff Develops Course of Action	TF XO, Staff
8. Staff/CDR Analyze Course of Action	TF CDR, XO, Staff
a. Plan scheme of maneuver	TF Cdr, S3, Co/Tm Cdrs, FSO
b. Organize for combat	TF Cdr, S3, Co/Tm Cdrs, supporting unit Cdrs
c. Establish engineer priority of effort	TF Cdr, S3, S2, Engr
d. Conduct MOPP analysis	TF Cdr, S3, CMLO
e. Plan for NBC operations	TF S3, CMLO
f. Plan survivability operations	TF Cdr, S3, S2, Engr, CMLO
9. Staff Compares Courses of Action	TF CDR, XO, Staff

<u>PLANNING TASKS</u>	<u>KEY PLAYERS</u>
10. Commander Announces Decision	TF CDR, XO, Staff
11. Staff Prepares OPORD/FRAGO	TF XO, S3, S2, S1/4, FSO, Engr, ADO, CMLO
12. Issue the OPORD/FRAGO	TF Cdr/Staff, Co/Tm Cdrs, Sep Plt Ldrs
13. Refine the Plan	TF XO, S3, S2, S1/4, FSO, ADO, Engr
14. Perform reconnaissance and surveillance	TF S2/S3, Co/Tm Cdrs, Sct Plt, GSR, Adj units
15. Perform counter reconnaissance actions	TF S2/S3, Co/Tm Cdrs, Sct Plt, GSR, Adj units
16. Maintain operations security	All combined arms team
17. Command Group Conducts and Receives Briefings	
a. Conduct briefbacks	TF Cdr/S3, Co/Tm Cdrs, Sep Plt Ldrs
18. Command Group/Command Posts Monitor, Supervise, and Direct Execution of Force Protection Operations and Activities	
19. Command Group/Command Posts Monitor, Supervise, and Direct TF Mission Preparation	
20. Commander, Commander's Representatives, and Staff Conduct Inspections and Visits	
a. Conduct pre-combat checks	Co/Tm Cdrs/XOs/1SGs, Plt Ldrs/PSGs, Sec Ldrs
21. Task Force Conducts Rehearsals	TF Cdr/Staff, Co/Tm Cdrs, Sep Plt Ldrs, Attached units
22. Task Force Plan Modified and Refined	
a. Verify IPB product	TF S3/S2, Sct Plt, GSR, Co/Tm Cdrs
b. Disseminate intelligence and combat information	TF Cdr, S3, S2, TOC, Co/Tm Cdrs, Sep Plts, Attached units
23. Command Post (TAC, TOC, CTCP) Operations	
24. Liaison and Coordination with Higher, Adjacent, Supported, and Supporting Elements	
25. Command Group/Command Posts Position to Control the Battle	

<u>PLANNING TASKS</u>	<u>KEY PLAYERS</u>
26. Prepare for combat	Co/Tm Cdrs/XO/1Sgts, subordinate element Cdrs, Plt Ldrs/Sgts, Section Ldrs
27. Position Forces	
a. Maneuver forces	TF Cdr, S3, Co/Tm Cdrs, Sep Plt Ldrs
b. Air defense elements	TF Cdr, S3, ADA Plt Ldr, Co/Tm Cdrs
c. Engineer elements	TF Cdr, S3, Engr, Co/Tm Cdrs
28. Control engineer assets	TF Cdr, S3, Co/Tm Cdrs, Sep Plt Ldrs
29. Prepare fighting positions	S3, Co/Tm Cdrs, Engr, Sep Plt Ldrs, Plt Ldrs, Sqd Ldrs/Veh Cdrs
30. Prepare protective positions	TF Cdr, S3, S2, S1, S4, HHC Cdr, Spt Plt Ldr, BMO, Co/Tm Cdrs, Engr, Sep Plt Ldrs, Plt Ldrs, Sqd Ldrs/Veh Cdrs
31. Avoid enemy NBC operations	TF Cdr, S3, S4, HHC Cdr, CMLO, Co/Tm Cdrs, Scout Plt Ldr
32. Perform combat service support operations	TF XO, S1, S4, Spt Plt Ldr, Co/Tm Cdrs/XOs/1SGs, BMO
33. Prepare troops for combat	All combined arms team
34. Prepare for NBC operations	S2, S3, CMLO, Co/Tm Cdrs
35. TF command posts locate where they can control the battle	
a. Position command element/TOC	TF Cdr, S3, S2, FSO, Engr, ALO, Co/Tm Cdrs, Alt CPs
b. Maintain communications	All combined arms team
36. TF command sees the battlefield	
37. TF commander directs and leads the execution phase	
a. Execute fire support	TF Cdr, S3, FSO, ALO, Co/Tm Cdrs, Mort Plt, FISTs
b. React to enemy air attack	TOC, ADA Plt Ldr, Co/Tm Cdrs, Attached unit Cdrs, Plt Ldrs
c. Integrate fire support with scheme of maneuver	TF Cdr, S3, FSO, ALO, Co/Tm Cdrs, Mort Plt, FISTs
38. TF command posts track and supports the battle	

<u>PLANNING TASKS</u>	<u>KEY PLAYERS</u>
39. TF conducts battlefield update	TF Cdr, S2, S3, TOC, Co/Tm Cdrs, Attached unit Cdrs, Sep Plt Ldrs
40. TF conducts the decision making process (accelerated)	
41. TF consolidates and recognizes	
a. Consolidate and reorganize	Bde S4, FSB Cdr/S3, TF S3, S4, S1, Spt Plt Ldr, Co/Tm Cdrs, attached units
b. Conduct emergency resupply	TF S4, Spt Plt Ldr, Co/Tm Cdrs/XOs/1SGs
c. Control and conduct evacuation	TF S4, BMO, Med Plt Ldr, Co/Tm Cdrs
d. Comply with commander's intent	All combined arms team
42. Move tactically	TF Cdr, S3, Co/Tm Cdrs, attached unit Cdrs, Sep Plt Ldrs, Plt Ldrs
43. Take action at halts	TF Cdr, S3, Co/Tm Cdrs, Engrs, attached unit Cdrs, Sep Plt Ldrs, Plt Ldrs, Veh Cdrs
44. Perform NBC operations	TOC, Cmd Gp, CMLO, Co/Tms, Sep Plts, attached units
45. Protect force from enemy NBC operations	All combined arms team
46. Operate in NBC contaminated areas	All combined arms team
47. Perform hasty decontamination	Bde Chem Sec, TF Cdr, S3, S4, Spt Plt Ldr, CMLO, Co/Tm Cdrs, Plt Ldrs
48. Employ smoke	TF Cdr, S3, FSO, ALO, Co/Tm Cdrs, Mort Plt, FISTs
49. Mark and report obstacles	TF S3, Engr, Engr unit, Co/Tms
a. Mark a minefield	TF S3, Engr, Engr unit, Co/Tm Cdrs, Sct Plt
b. Report obstacles	

**KEY INPUTS/OUTPUTS
(WITH CRITICAL INFORMATION)**

KEY INPUTS

TF-1 TASK FORCE OPORD

- a. Commander's intent.
- b. Designation of main effort and scheme of maneuver.
- c. Task organization and effective time.
- d. Positioning of engineers, air defense and mortars within formations and areas/positions.
- e. OPSEC, deception, radio listening silence requirements.
- f. Event and decision support templates.
- g. Rules of engagement and acceptable level of risk.
- h. Reporting requirements.
- i. Critical or mandated times (e.g. in AA NLT____, LD at____, etc.).

TF-2 TASK FORCE INTELLIGENCE ANNEX

- a. Terrain analysis.
- b. Weather analysis.
- c. Enemy analysis and threat integration (analysis of threat weapons systems for which protection is required).
- d. Situation templates.

TF-3 TASK FORCE ENGINEER ANNEX

- a. Analysis of survivability capabilities, resources, and availability of earth moving equipment.
- b. Analysis of threat mobility/countermobility assets and capabilities.
- c. Plan for survivability operations.
- d. Execution matrix, and priorities, for fighting and protective position construction.
- e. Brigade directed obstacles.
- f. Identification of requirements for additional engineer support, if necessary to support the plan.

TF-4 TASK FORCE LOGISTICS ANNEX

- a. Supply and maintenance plans and priorities.
- b. Class III, IV, V and IX allocated and requested.
- c. Identification of Class IIZ and VIIZ (chemical supplies and equipment) requirements and priorities.
- d. Location and arrangement of combat and field trains.

TF-5 TASK FORCE FIRE SUPPORT ANNEX

- a. Priority of fires.
- b. Fire plan/matrix and planned displacements.
- c. Availability and allocation of smoke fires.
- d. Target list (identification of enemy NBC weapons/delivery systems as priority targets).

TF-6 TASK FORCE NBC ANNEX

- a. NBC threat assessment and minimum CB threat status.
- b. MOPP assessment and directed minimum MOPP levels.
- c. Identification of tentative decontamination sites and priority for decontamination.
- d. Identification and location of collective protection systems/facilities.
- e. Location of known or suspected contaminated areas.
- f. Availability and location of NBC defense and decontamination supplies/materiel (Class IIIZ and VIIIZ).
- g. Detailed Operational Exposure Guidance (OEG).
- h. Information on attached/supporting chemical smoke, decontamination, and reconnaissance units.

TF-7 TASK FORCE TACTICAL SOP

- a. Formations.
- b. Actions on contact at danger areas, gaps, and obstacles.
- c. Immediate action drills and procedures.
- d. Fighting and protective position configurations, dimensions, and construction procedures.
- e. OPSEC requirements and procedures (physical, communications, camouflage, etc.)
- f. Passive and active air defense measures.
- g. Preparation for, response to and reporting of NBC operations/activities.
- h. NBC attack warning instructions and reporting procedures.
- i. Designation of alternate nets for follow-up reports or instructions.
- j. MOPP levels and automatic masking criteria and procedures.
- k. Passive and active NBC defense measures.
- l. Load plans, basic loads, pre-combat check requirements and checklists.
- m. Combat vehicle Class IV basic loads for individual and crew served weapons position construction.
- n. Procedures for limiting EMP effects.
- o. Procedures for protecting medical environment and personnel while handling contaminated casualties.

KEY OUTPUTS**C-1 MANEUVER COMPANY/TEAM OPORD**

- a. Commander's intent.
- b. Routes, axes, areas, sectors or battle positions designated.
- c. Main effort identified and scheme of maneuver explained.
- d. Task organization and specific missions.
- e. Formations, order of march, and security responsibilities designated.
- f. Prioritization of fighting and protective position construction.
- g. Identification of individual responsible for siting of positions and control of engineer/earth moving assets.
- h. Identification of NBC threat and MOPP requirements.
- i. Identification of tentative decontamination sites and priority for decon.
- j. Supply, maintenance, and evacuation plans, priorities, and responsibilities.
- k. Link up and positioning of engineers within company.
- l. Class III, IV, V, and IX allocated and requested.
- m. Identification of Class IIIZ and VIIIZ requirements.

CCF 24

TASK LIST SUMMARY

See Task Analysis of interacting CCFs for detailed analysis of related planning, preparation and execution tasks. See CCF 18, 19 and 20 for analysis of planning, preparation and execution process and all command and control planning, preparation and execution tasks. CCF 18, Planning, tasks are identified as tasks 1-13 in this list. CCF 19, Preparation, tasks are identified as tasks 17-25 in this list. CCF 20, Execution, tasks are identified as tasks 35-40 in this list. Additional and subordinate tasks identified are those tasks considered by the analyst to be critical to successfully enhance the physical protection of the force. Input and output/products of the process critical for CCF 24 are listed at pages 20 through 22. References are shown in parenthesis (..) after the task title. Titles not taken directly from the AMTP are marked with an asterix (*). (See note on page 26)

PLANNING

1. **Direct and Lead Task Force During Planning for the Battle**
 - a. Initiate preparation and troop leading procedures (ARTEP 71-2-MTP, Task 7-1-3001/5; ARTEP 71-1-MTP, Task 17-2-0101, 0701; FM 71-123, Chap 2; FM 71-1, Chap 2; FM 7-7J, Chap 2)
2. **Receive Order From Higher Headquarters (FM 101-5; FM 71-123)**
3. **Conduct Mission Analysis (ARTEP 71-2-MTP, Task 7-1-3901/2, 3904/3; FM 101-5, Chap 4; FM 71-2, Chap 2; FM 71-123, Chap 1; FM 5-103, Chap 2)**
4. **Issue the Warning Order (ARTEP 71-2-MTP, Task 7-1-3901/2, 3901/1, 3902/2, 3904/2; FM 101-5, Chap 4; FM 71-2, Chap 2; FM 71-123, Chap 1)**
5. **Commander Issues Guidance (FM 101-5, Chap 4)**
6. **Prepare Staff Estimates (ARTEP 71-2-MTP, Task 7-1-3901/3; FM 101-5)**
 - a. Conduct terrain analysis (ARTEP 71-2-MTP, Task 7-1-3906/1, 3909/1; FM 71-2, Chap 2; FM 34-3, App E)

Prepare intelligence estimate (ARTEP 71-2-MTP, Task 7-1-3905/1, 3906-1; FM 71-2, Chap 2; FM 34-3, Chap 4-6; FM 5-103, Chap 2; FM 3-100, Chap 2; FM 3-3, Chap 1)

Develop reconnaissance and surveillance plan * (ARTEP 71-2-MTP, Task 7-1-3901/3, 3906/4; FM 71-2, Chap 2,3; FM 71-123, Chap 3; FM 3-3, Chap 1, 5; FM 3-4, Chap 3; FM 3-101, Chap 3)
 - b. Integrate engineer effort * (ARTEP 71-2-MTP, Task 7-1-3902/3; FM 5-103, Chap 2)

Conduct survivability analysis * (ARTEP 71-2-MTP, Task 7-1-3909/1, 3909/2; ARTEP 5-145-31-MTP, Task 05-2-0027; FM 5-103, Chap 2; FM 3-100, Chap 2; FM 3-3, Chap 1)

Prepare engineer estimate/annex (ARTEP 5-145-31-MTP, Task 05-2-0002, 0003; FM 5-100, Chap 3; FM 5-103, Chap 2)

- c. Develop fire support plan (ARTEP 71-2-MTP, Task 7-1-3907/1, 3907/2, 3908/4, 3911/1; FM 71-2, Chap 6; FM 71-123, Chap 7; FM 3-100, Chap 3)
- d. Determine CSS requirements * (ARTEP 71-2-MTP, Task 7-1-3002/3, 3003/5, 3002/8, 3912/1, 3913/5; FM 71-2, Chap 7, App C; FM 3-4, Chap 6)
- e. Integrate NBC effort * (ARTEP 71-2-MTP, Task 7-1-3902/7; FM 3-100, Chap 3)
Provide NBC estimate * (ARTEP 71-2-MTP, Task 7-1-3902/7; FM 3-100, Chap 2, 3, 7; FM 3-4, Chap 3)

7. **Staff Develops Course of Action** (ARTEP 71-2-MTP, Task 7-1-3901/4; FM 101-5, Chap 4; FM 71-123)

8. **Staff/CDR Analyze Course of Action** (ARTEP 71-2-MTP, Task 7-1-3901/4; FM 101-5, Chap 4)

- a. Plan scheme of maneuver * (ARTEP 71-2-MTP, Task 7-1-3901/7, 3902/8; FM 71-2, Chap 3, 4; FM 71-123, Chap 3, 4, 5, 6; FM 5-100, Chap 6, 7; FM 3-100, Chap 10, 11)
- b. Organize for combat * (ARTEP 71-2-MTP, Task 7-1-3901/9; FM 71-2, Chap 3; FM 5-100, Chap 6)
- c. Establish engineer priority of effort * (ARTEP 71-2-MTP, Task 7-1-3009/1; FM 71-2, Chap 4; FM 5-103, Chap 2)
- d. Conduct MOPP analysis * (ARTEP 71-2-MTP, Task 7-1-3910/1; FM 3-4, Chap 2; FM 3-100, Chap 3)
- e. Plan for NBC operations * (ARTEP 71-2-MTP, Task 7-1-3902/7; FM 3-3, Chap. 1; FM 3-4, Chap. 2; FM 3-100, Chap. 4, 7, 10, 11)
- f. Plan survivability operations (ARTEP 71-2-MTP, Task 7-1-3909/3, 3909/4; FM 71-2, Chap 3, 4; FM 5-100, Chap 6, 7; FM 5-103, Chap 1; FM 3-3, Chap 1; FM 3-100, Chap 4, 10, 11)

9. **Staff Compares Courses of Action** (FM 101-5, Chap 4)

10. **Commander Announces Decision** (FM 101-5, Chap 4)

11. **Staff Prepares OPORD/FRAGO** (ARTEP 71-2-MTP, Task 7-1-3901/5; FM 101-5, Chap 4)

12. **Issue the OPORD/FRAGO** (ARTEP 71-2-MTP, Task 7-1-3901/7, 3902/8, 3904/11; FM 101-5, Chap 4); FM 71-2, App B; FM 71-123, Chap 1)

13. **Refine the Plan** (ARTEP 71-2-MTP, Task 7-1-3901/8; FM 101-5, Chap 4)

14. **Perform reconnaissance and surveillance** (ARTEP 71-2-MTP, Task 7-1-3002/3, 3007/1, 3008/1, 3027/1, 3905/2, 3906/4, 3906/5, 3909/2; FM 71-2, Chap 3; FM 34-2-1; FM 3-4, Chap 3)

15. **Perform counter reconnaissance actions** (ARTEP 71-2-MTP, Task 7-1-3905/4, 3028/2, 3028/3, 3909/3; FM 71-2, Chap 4)
16. **Maintain operations security** (ARTEP 71-2-MTP, Task 7-1-3028; FM 71-2, Chap. 2)

PREPARATION

17. **Command Group Conducts and Receives Briefings** (ARTEP 71-2-MTP, Task 7-1-3903/2; FM 71-2, Chap 3; FM 101-5, Chap 5)
 - a. Conduct briefbacks * (ARTEP 71-2-MTP, Task 7-1-3901/7, 3903/2; ARTEP 71-1-MTP, Task 17-2-0101; FM 71-2, Chap 2; FM 71-123, Chap 2; FM 71-1, Chap 2)
18. **Command Group/Command Posts Monitor, Supervise, and Direct Execution of Force Protection Operations and Activities** (ARTEP 71-2-MTP, Tasks 7-1-3028/8, 3904/6, 3905/2, 3905/4)
19. **Command Group/Command Posts Monitor, Supervise, and Direct TF Mission Preparation** (ARTEP 71-2-MTP, Tasks 3001/5, 3901/9, 3901/10, 3904/12; FM 71-123, Chap 3)
20. **Commander, Commander's Representatives, and Staff Conduct Inspections and Visits** (ARTEP 71-2-MTP, Tasks 7-1-3903/2; FM 71-2, Chap 2)
 - a. Conduct pre-combat checks * (ARTEP 71-1-MTP, Task 17-2-0101/11; ARTEP 5-145-31-MTP, Task 05-2-0114)
21. **Task Force Conducts Rehearsals** (ARTEP 71-2-MTP, Task 7-1-3901/7, 3024/7; FM 71-2, Chap 2; FM 71-123, Chap 2; FM 90-13-1, App D; FM 101-5, App M)
22. **Task Force Plan Modified and Refined** (ARTEP 71-2-MTP, Tasks 7-1-3901/8, 3904/12)
 - a. Verify IPB product * (FM 71-2, Chap 2; FM 34-3 Chap 4; FM 3-100, Chap 2, 4)
 - b. Disseminate intelligence and combat information * (ARTEP 71-2-MTP, Task 7-1-3906/7, 3905/3; FM 71-2, Chap 2; FM 3-100, Chap 3)
23. **Command Post (TAC, TOC, CTCP) Operations** (ARTEP 71-2-MTP, Tasks 7-1-3401, 3035, 3036, 3902/9, 3913)
24. **Liaison and Coordination with Higher, Adjacent, Supported, and Supporting Elements** (ARTEP 71-2-MTP, Tasks 7-1-3003/2, 3010/2, 3016/1, 3902/10)
25. **Command Group/Command Posts Position to Control the Battle** (ARTEP 71-2-MTP, Tasks 7-1-3901/11, 3902/11, 3903/1)
26. **Prepare for combat** (ARTEP 71-1-MTP, Task 17-2-0101; FM 71-123)
27. **Position Forces ***
 - a. Maneuver forces * (ARTEP 71-2-MTP, Task 7-1-3008/1, 3009/1; FM 71-2, Chap 4)

- b. Air defense elements * (ARTEP 71-2-MTP, Task 7-1-3004/1, 3005/1, 3911/4; FM 71-2, Chap 6)
- c. Engineer elements * (ARTEP 71-2-MTP, Task 7-1-3004/1; ARTEP 5-145-31-MTP, Task 05-2-0114; FM 71-2, Chap 6; FM 5-100, Chap 6, 7)

28. **Control engineer assets** * (FM 71-2, Chap 6; FM 71-123, Chap 4; FM 71-1, Chap 4, 6)

29. **Prepare fighting positions** * (ARTEP 71-2-MTP, Task 7-1-3009/1, 3009/2; FM 5-100, Chap 6, 7, 8; FM 5-103, Chap 1, 2)

30. **Prepare protective positions** * (ARTEP 71-2-MTP, Task 7-1-3009/1, 3009/2; FM 5-100, Chap 6, 7, 8; FM 5-103, Chap 1, 2)

31. **Avoid enemy NBC operations** * (FM 3-3, Chap 1, 3, 4; FM 3-100, Chap 2,4,10,11)

32. **Perform combat service support operations** (ARTEP 71-2-MTP, Task 7-1-3912; FM 71-2, Chap 7; FM 71-123, App A; FM 3-3, Chap 6; FM 3-100, Chap 2, 3; FM 3-101, App B)

33. **Prepare troops for combat** * (FM 3-4, Chap 2; FM 22-9; FM 22-100, Chap 8, 9; FM 26-2)

34. **Prepare for NBC operations** * (ARTEP 71-2-MTP, Task 7-1-3910/2, 3910/3, 3910/7; FM 71-2, App E; FM 3-3, Chap 2)

EXECUTION

35. **TF command posts locate where they can control the battle** (ARTEP 71-2-MTP, Task 7-1-3901/11; FM 71-100, Chap 1)

- a. Position command element/TOC * (ARTEP 71-2-MTP, Task 7-1-3901/11, 3903/1, 3904/1, 3904/14; FM 71-2, Chap 2)
- b. Maintain communications (ARTEP 71-2-MTP, Task 7-1-3401, 3902/1; FM 71-2, Chap 2)

36. **TF Commander sees the battlefield** (ARTEP 71-2-MTP, Task 7-1-3901/11; FM 71-100, Chap 1)

37. **TF commander directs and leads the execution phase** (ARTEP 71-2-MTP, Task 7-1-3901/12; FM 71-100, Chap 1)

- a. Execute fire support (ARTEP 71-2-MTP, Task 7-1-3027/2, 3027/5, 3907/3, 3907/4, 3907/5, 3907/6; FM 3-100, Chap 3)
- b. React to enemy air attack (ARTEP 71-2-MTP, Task 7-1-3911/6; FM 71-2, Chap 6)
- c. Integrate fire support with scheme of maneuver * (ARTEP 71-2-MTP, Task 7-1-3027/2, 3027/5, 3907/4, 3908/4, 3908/5, 3908/7; FM 71-2, Chap 6)

38. **TF command posts track and support the battle** (ARTEP 71-2-MTP, Tasks 7-1-3903/3, 3904; FM 71-123, Chap 1)
 - a. Insure continuous engineer operations (FM 100-5, Chap 7; FM 71-123, Chap 4)
39. **TF conducts battlefield update (METT-T based)** (ARTEP 71-2-MTP, Tasks 7-1-3902/3, 3906/1, 3913/5)
 - a. Conduct battlefield update * (ARTEP 71-2-MTP, Task 7-1-3906/7)
40. **TF conducts the decision making process (accelerated)** (FM 71-123, Chap 1)
41. **TF consolidates and reorganizes** (ARTEP 71-2-MTP, Tasks 7-1-3022, 3023)
 - a. Consolidate and reorganize (ARTEP 71-2-MTP, Task 7-1-3022, 3023; FM 71-2, Chap 3)
 - b. Conduct emergency resupply * (ARTEP 71-2-MTP, Task 7-1-3913/13; FM 71-2, Chap 7; FM 3-101, App B)
 - c. Control and conduct evacuation * (ARTEP 71-2-MTP, Task 7-1-3033, 3912/5, 3912/6; FM 71-2, Chap 7)
 - d. Comply with commander's intent * (FM 71-2, Chap 2)
42. **Move tactically** (ARTEP 71-2-MTP, Task 7-1-3004; FM 71-2, Chap 3; FM 5-100, Chap 10, 11)
43. **Take action at halts** (ARTEP 71-2-MTP, Task 7-1-3004/6; FM 5-100, Chap 6; FM 5-103, Chap 2)
44. **Perform NBC operations** (ARTEP 71-2-MTP, Task 7-1-3910/4, 3910/5, 3910/6, 3910/8, 3910/9, 3029; FM 71-2, App E; FM 3-3, Chap 2; FM 3-100, Chap 3)
45. **Protect force from enemy NBC operations *** (ARTEP 71-2-MTP, Task 7-1-3910, 3029; FM 3-100, Chap 4, 10, 11)
46. **Operate in NBC contaminated areas *** (ARTEP 71-2-MTP, Task 7-1-3031; ARTEP 71-1-MTP, Task 17-2-0313, 0314; FM 3-100, Chap 4, 10, 11)
47. **Perform hasty decontamination** (ARTEP 71-2-MTP, Task 7-1-3032; ARTEP 71-1-MTP, Task 03-2-C031; FM 3-100, Chap 4, 10; FM 3-5, Chap 2)
48. **Employ smoke** (ARTEP 71-2-MTP, Task 7-1-3004/5, 3027/5; FM 71-2, Chap 6; FM 3-100, Chap 6; FM 3-101, Chap 3)
49. **Mark and report obstacles**
 - a. Mark a minefield (ARTEP 5-145-11-MTP, Task 05-4-0110; ARTEP 71-2-MTP, Task 7-1-3909/5; FM 5-101, Chap 4, 5; FM 20-32, Chap 9)
 - b. Report obstacles (ARTEP 71-2-MTP, Task 7-1-3909/6; FM 5-101, Chap 4; FM 20-32, Chap 9)

Note: Task titles are either taken directly from an MTP task or subtask, or, are derived from portions of subtasks, implied tasks, or requirements in the MTPs, applicable FMs, or other related documents. Where there was no specific MTP task to use as the task title, the task title was usually taken from the primary reference FM. Titles not taken directly from the MTP are marked with an asterisk (*).

ENHANCE PHYSICAL PROTECTION PLANNING TASK LIST

See CCF 18 for a detailed analysis of the planning process and all planning tasks. Key input/output and products of the process critical for CCF 24 are listed at pages 22 through 23. Planning tasks 1 through 13 identified in this list are the CCF 18 tasks. The additional tasks and the subordinate tasks identified are those tasks considered by the analyst to be critical to successfully enhance the physical protection of the force. Tasks are not necessarily listed in chronological order. Some tasks are performed concurrently and/or at different echelons in the task force. The chronological or sequential relationship of the tasks is shown in the charts at pages 12-14. Critical tasks that are performed at levels below task force are also listed as sub-paragraphs of the task force tasks and are sub-titled as "Company/team", "Platoon", or "Engineer company" tasks. Only company and platoon tasks considered critical to task force success are listed. References are shown in parenthesis (...) after the task title. Titles not taken directly from the MTP are marked with an asterisk (*).

1. Direct and Lead Task Force During Planning for the Battle

- a. Initiate preparation and troop leading procedures (ARTEP 71-2-MTP, Task 7-1-3001/5; ARTEP 71-1-MTP, Task 17-2-0101, 0701; FM 71-123, Chap 2; FM 71-1, Chap 2; FM 7-7J, Chap 2)
 - 1) Task force and subordinate elements initiate planning and preparation for combat with the information available upon receipt of the warning order.
 - a) Develop an initial time line, based on a reverse planning schedule, to distribute or allocate planning and preparation time.
 - b) Issue warning orders to subordinates with as much information as available to allow units to begin preparations and precombat checks.
 - c) Local security measures, LPs/OPs, and patrols are initiated.
 - d) If sufficient mission information is available, initiate leader's reconnaissance.
 - e) TF elements initiate resupply, maintenance, and personnel operations; unit is brought to full basic load, damaged equipment is repaired/replaced, replacements briefed and organized, and vehicles topped off with fuel.
 - f) Subordinate units report personnel, weapons system, vehicle, and supply status to task force; specific problems or critical areas are identified.
 - g) TF S4 monitors and reports status of subordinate elements as CSS estimate is developed.
 - 2) See CCF 19, Direct and Lead Unit During Preparation for the Battle; CCF 25, Provide Operations Security.

2. **Receive Order From Higher Headquarters** (FM 101-5; FM 71-123)
3. **Conduct Mission Analysis** (ARTEP 71-2-MTP, Task 7-1-3901/2, 3904/3; FM 101-5, Chap 4; FM 71-2, Chap 2; FM 71-123, Chap 1; FM 5-103, Chap 2)
 - a. Subordinate commanders/leaders must know what survivability tasks are necessary and how they interface with mobility, countermobility, and other mission critical tasks.
4. **Issue the Warning Order** (ARTEP 71-2-MTP, Task 7-1-3901/2, 3901/1, 3902/2, 3904/2; FM 101-5, Chap 4; FM 71-2, Chap 2; FM 71-123, Chap 1)
 - a. All subordinate elements are appropriately alerted of the impending mission.
5. **Commander Issues Guidance** (FM 101-5, Chap 4)
6. **Prepare Staff Estimates** (ARTEP 71-2-MTP, Task 7-1-3901/3; FM 101-5)
 - a. Intelligence
 - 1) Conduct terrain analysis (ARTEP 71-2-MTP, Task 7-1-3906/1, 3909/1; FM 71-2, Chap 2; FM 34-3, App E)
 - a) Identify terrain that can provide protection to troops, weapons systems or supplies from threat direct and indirect fire weapons.
 - b) Analyze obstacles, surface configuration, type soil, drainage and trafficability.
 - c) Evaluate terrain to determine the effect on mobility, countermobility, the impact of reinforcement, and suitability for digging and revetting of positions.
 - 2) Prepare intelligence estimate (ARTEP 71-2-MTP, Task 7-1-3905/1, 3906/1; FM 71-2, Chap 2; FM 34-3, Chap 4-6; FM 5-103, Chap 2; FM 3-100, Chap 2; FM 3-3, Chap 1)
 - a) A terrain analysis is conducted using the factors of OCOKA.
 - b) Weather conditions, as they impact on friendly and threat operations, particularly use of chemical weapons, are identified.
 - c) Threat capabilities and intentions are determined; weapon types, probable number of weapons and rounds, and types of attack critical to survivability planning.
 - d) Likely threat positions and courses of action identified; potential threat NBC targets identified.
 - e) Doctrinal and situational templates are prepared and analyzed.
 - 3) Develop reconnaissance and surveillance plan (ARTEP 71-2-MTP, Task 7-1-3901/3, 3906/4; FM 71-2, Chap 2,3; FM 71-123, Chap 3; FM 3-3, Chap 1,5; FM 3-4, Chap 3; FM 3-101, Chap 3)

- a) NBC reconnaissance is planned to detect, identify, mark and report suspected contaminated areas.
- b) Information on threat NBC delivery systems and activity, movement of NBC equipment or materials, NBC attacks, changes in NBC levels of protection (carrying or wearing protective gear), presence and training level of NBC personnel or units (chemical recon or decon units moved forward) are identified as collection priorities.
- c) Information on identified or suspected natural or reinforcing obstacles and terrain or structures that provide natural protection are identified as collection priorities.

4) See CCF 1, Conduct Intelligence Planning.

b. Engineer

- 1) Integrate engineer effort (ARTEP 71-2-MTP, Task 7-1-3902/3; FM 5-103, Chap 2)
 - a) The engineer officer augments the task force planning effort and is involved with the planning process beginning with the warning order.
- 2) Conduct survivability analysis (ARTEP 71-2-MTP, Task 7-1-3909/1, 3909/2; ARTEP 5-145-31-MTP, Task 05-2-0027; FM 5-103, Chap 2; 3-100, Chap 2; FM 3-3, Chap 1)
 - a) Engineer and Chemical Officer, in conjunction with S-2, prepare detailed analysis of weather, terrain and friendly/threat activities in area of operations.
 - b) Analyze weather for precipitation and temperature impact on trafficability, soil conditions, visibility, engineer vehicle capabilities, chemical or biological agent employment, smoke operations and work load vs MOPP level considerations.
 - c) Analyze terrain for:
 - 1) Impact of observation on obstacle and position placement, enemy and friendly.
 - 2) Concealment for engineer equipment and materials during position preparation operations.
 - 3) Identification of mobility corridors and evaluation of engineer actions needed to enhance or hinder movement of friendly and threat forces as factors in placement of positions.
 - 4) Availability of natural cover and exposure of tentative positions to direct, indirect, and tactical air fire.
 - 5) Suitable locations for decontamination sites.
 - d) Analyzes activities for major vulnerabilities to threat intelligence operations.
 - 1) Vulnerability to discovery and location due to electronic emissions, firing signature, trackable projectiles, and the need to operate in the open.

- 2) Capability to move to avoid detection, or to displace before counterfire arrives.
- 3) Distance from the FLOT, which affects the likelihood of acquisition as a target, vulnerability to artillery and air bombardment, and chance of direct fire contact.
- 4) Any unique items of equipment, the loss of which would make other equipment useless.
- 5) Threat's engagement priorities.

- e) Engineer provides input to S-2 on threat engineer units, capabilities, strengths, and locations.
- f) Chemical Officer provides input to S-2 on threat NBC capabilities based on types of units and weapons in area, areas of likely employment based on doctrine, and how the threat would employ NBC and smoke in support his battle plan.
- g) Engineer develops a situational template of threat engineer operations which is incorporated into the engineer estimate/annex.

- 3) Prepare engineer estimate/annex (ARTEP 5-145-31-MTP, Task 05-2-0002, 0003; FM 5-100, Chap 3; FM 5-103, Chap 2)
 - a) A prioritized engineer plan of support, based on the commander's maneuver scheme, is developed and recommended to the S-3 and/or commander.
 - b) Situation analysis identifies nature of operation and unusual requirements, incorporates battlefield assessment, and evaluates engineer capabilities, disposition, personnel, logistics (particularly levels of Class IV and V), and equipment.
 - c) Develops more than one course of action and identifies the requirements, tasks, resources, priorities, critical events/actions, available labor (maneuver unit troops, engineers, and local civilian personnel), material/equipment restraints and allocation of forces to accomplish each.
 - d) The estimate makes recommendations for task organization, command/support relationships, and priorities of effort.
 - e) The estimate identifies engineer service support requirements for Class III, IV, V, and transportation.
 - f) The estimate includes obstacle overlay, engineer work timeline, execution matrix identifying all engineer tasks (survivability, mobility, countermobility), and list of critical tasks to be directed to subordinate units.
- 4) See CCF 1, Conduct Intelligence Planning; CCF 12, Employ Chemical Weapons; CCF 21, Overcome Obstacles; CCF 23, Provide Countermobility; CCF 25, Provide Operations Security; CCF 27, Provide Decontamination.

c. Fire support

- 1) Develop fire support plan (ARTEP 71-2-MTP, Task 7-1-3907/1, 3907/2, 3908/4, 3911/1; FM 71-2, Chap 6; FM 71-123, Chap 7; FM 3-100, Chap 3)
 - a) FSO, ALO, and ADO develop an integrated fire support plan that supports commander's concept/intent and is synchronized with the scheme of maneuver.
 - b) Artillery and mortar delivered smoke are planned for obscuration and screening requirements.
 - c) Plans for employment of chemical weapons.
 - d) Enemy NBC weapons and delivery systems are identified as high priority targets.
- 2) See CCF 7, Employ Mortars; CCF 8, Employ Field Artillery; CCF 9, Employ Close Air Support; CCF 12, Employ Chemical Weapons; CCF 15, Coordinate, Synchronize, and Integrate Fire Support; CCF 16, Take Active Air Defense Measures.

d. Combat Service Support

- 1) Determine CSS requirements (ARTEP 71-2-MTP, Task 7-1-3002/3, 3002/5, 3002/8, 3912/1, 3913/5; FM 71-2, Chap 7, App C; FM 3-4, Chap 6)
 - a) Engineer specific Class IV, V, VII, and IX supplies are determined.
 - b) The correct quantities of Class IIZ and VIIZ (chemical operational supplies, such as fog oil and decontaminants, and expendable chemical supplies, such as MOPP gear, filters, protective wraps, etc.) are determined.
 - c) Additional supply of Class IV and V required for fighting and protective position preparation and suppression and obscuration missions is considered.
 - d) Transportation priorities are established for special supply and equipment requirements (bulldozers).
- 2) See CCF 27, Provide Decontamination; CCF 28, Provide Transport Services; CCF 29, Conduct Supply Operations; CCF 30, Provide Personnel Services; CCF 31, Maintain Weapons Systems and Equipment.

e. Chemical

- 1) Integrate NBC effort (ARTEP 71-2-MTP, Task 7-1-3902/7; FM 3-100, Chap 3)
 - a) The chemical officer augments the task force planning effort and is involved with the planning process beginning with the warning order. The chemical officer:
 - b) Analyzes threat NBC threat and assesses friendly vulnerability.
 - c) Receives, collates, and transmits NBC reports.

- d) Supervises NBC monitoring and reconnaissance efforts to find contamination.
- e) Recommends the employment of assigned or attached chemical units.
- f) Provides support for NBC offensive operations.

2) Provide NBC estimate (ARTEP 71-2-MTP, Task 7-1-3902/7; FM 3-100, Chap 2, 3, 7; FM 3-4, Chap 3)

- a) The Chemical Officer integrates NBC operations into the OPORD through coordination with other staff members and, usually, an informal estimate process.
- b) The Chemical officer:
 - 1) Conducts a vulnerability assessment and assesses the force's readiness to operate under NBC conditions.
 - 2) Works with the S1 and medical officer to assess the probability and impact of NBC related casualties, medical support available and prepared for NBC operations, associated concerns such as heat stress in MOPP, and monitoring of radiation exposure.
 - 3) Works with the S2 to assess environmental and terrain factors conducive to friendly and threat employment of NBC weapons, analyze threat's situation and ability to use NBC, and assists in the IPB process to determine and evaluate threat capabilities, types of agents and obscurants, protective posture, and the development of PIRs.
 - 4) Works with the S3 in recommending proper MOPP guidance, troop safety criteria, Operational Exposure Guidance (OEG), and priorities for NBC defense resources.
 - 5) Recommends task organization for attached chemical units and coordinates smoke, decontamination and NBC reconnaissance with those units.
 - 6) Provides input on target analysis, hazard predictions, control of chemical units, priorities of NBC actions (decon, recon, chemical equipment resupply) and rear area needs for smoke and decon support.
 - 7) Coordinates with the S4 on consumption rates for NBC related supplies (MOPP gear, decontaminants, protective wraps and covers, filters, etc.) and status of chemical munitions.
 - 8) Works with engineer and FSO to identify smoke/obscurant requirements and allocation of smoke assets, effects of NBC weapons employment at obstacles, and in target analysis.
 - 9) Provides downwind hazard analysis and assessment of state of training and ability of soldiers to withstand stress of NBC attack/MOPP requirements.

3) See CCF 12, Employ Chemical Weapons (TBD); CCF 27, Provide Decontamination.

7. **Staff Develops Course of Action** (ARTEP 71-2-MTP, Task 7-1-3901/4; FM 101-5, Chap 4; FM 71-123)
8. **Staff/CDR Analyze Course of Action** (ARTEP 71-2-MTP, Task 7-1-3901/4; FM 101-5, Chap 4)
 - a. Plan scheme of maneuver (ARTEP 71-2-MTP, Task 7-1-3901/7, 3902/8; FM 71-2, Chap 3,4; FM 71-123, Chap 3, 4, 5, 6; FM 5-100, Chap 6, 7; FM 3-100, Chap 10, 11)
 - 1) Defense – Defend, delay, withdrawal, rearward passage of lines.
 - a) Survivability, NBC protection, and OPSEC considerations are: concealment, frequent unit moves, deception, emission security, construction of fighting positions (primary, alternate, and supplementary) for combat vehicles and direct and indirect fire weapons systems, construction of protective positions for C&C elements and critical logistics assets, protective obstacles, use of obscurants, selection of protective terrain, and use of MOPP and collective shelters.
 - 2) Offense – Attack, movement to contact, breakout.
 - a) A coordinated movement sequence is developed, routes are identified for movement and positioning of maneuver forces from line of departure through actions on final objective, and reconnaissance conducted to identify natural and reinforcing obstacles and tentative fighting/protective positions along routes.
 - b) Smoke/obscuration plan developed integrating FA, smoke platoon and maneuver unit organic smoke generating capabilities.
 - c) Survivability and NBC protection considerations are: use of multiple routes, dispersion and mobile forces, recon to detect and bypass contaminated areas, use of smoke, protective emplacements for CS and CSS elements, hardening of C&C facilities, use of covered and concealed routes, use of MOPP and collective protection, and selection of protective positions during halts.
 - 3) See CCF 6, Engage Enemy with Direct Fire and Maneuver; CCF 21, Overcome Obstacles; CCF 23, Provide Countermobility.
 - b. Organize for combat (ARTEP 71-2-MTP, Task 7-1-3901/9; FM 71-2, Chap 3; FM 5-100, Chap 6)
 - 1) TF identifies survivability requirements, designates and task organizes for construction support.
 - 2) Engineer unit and equipment is task organized to support subordinate units with position construction, identified requirements are prioritized.
 - 3) Engineer asset manager is designated to control movement of equipment, CP coordinates linkup locations, times, and responsible elements.
 - c. Establish engineer priority of effort (ARTEP 71-2-MTP, Task 7-1-3009/1; FM 71-2, Chap 4; FM 5-103, Chap 2)

- 1) Command and support relationships are delineated for the engineer effort and a list of priority tasks for the task force engineering effort is delegated to the engineer and maneuver elements.
- 2) Commander evaluates time available, threat situation, survivability needs and resources available, and the engineer's recommendations.
- 3) Priorities are established for specific mobility, countermobility, survivability and general engineering tasks and resources are allocated.
- 4) A detailed tactical construction plan to support survivability efforts is developed, breaking down requirements into priority groups or levels of protection (usually primary positions for combat systems and TOC, then alternate or supplementary positions, combat support and CSS positions).
- 5) See CCF 21, Overcome Obstacles; CCF 23, Provide Countermobility.

d. Conduct MOPP analysis (ARTEP 71-2-MTP, Task 7-1-3910/1; FM 3-4, Chap 2; FM 3-100, Chap 3)

- 1) Commander assesses unit's vulnerability to NBC attack and obscurant employment and determines the protection required versus the threat's NBC capability based on consideration of mission, environmental and soldier factors.
- 2) Commander must balance reduced risk of casualties due to chemical/biological agent exposure against the increased risk of performance decrements and heat strain casualties as MOPP levels increase.
- 3) Both active and passive measures are taken to reduce vulnerability.
- 4) Size, location and density of units and sensitivity of equipment are primary considerations for nuclear employment; protection available and type and amount of agent employed are primary considerations for chemical or biological employment.
- 5) Mission factors to be considered are:
 - a) What is the mission, how quickly must it be accomplished, and what is the expected duration?
 - b) What is the likelihood of chemical employment, what agent, and what are the likely targets?
 - c) What is the expected warning time and what additional protection is available (such as shelters or cover)?
 - d) How physically and mentally demanding is the work to be performed?
 - e) What is the likely follow-on mission?
 - f) Are adequate food and water supplies available?

- 6) Environmental factors to be considered are:
 - a) What is the ambient air temperature (outside and inside vehicles)?
 - b) What is the humidity and the WBGT index reading for the AO?
 - c) Is it cloudy or sunny; day or night?
 - d) Is it windy, what is the direction and speed of the wind?
- 7) Soldier factors to be considered are:
 - a) Are the soldiers well rested, hydrated and nourished?
 - b) Are the soldiers healthy and heat acclimatized?
 - c) Are the soldiers physically fit and well trained and has training included operating in MOPP 4 level protection for extended periods.
- 8) See CCF 12, Employ Chemical Weapons; CCF 27, Provide Decontamination.
- e. Plan for NBC operations (ARTEP 71-2-MTP, Task 7-1-3902/7; FM 3-3, Chap. 1; FM 3-4, Chap. 2; FM 3-100, Chap. 4, 7, 10, 11)
 - 1) NBC section:
 - a) Plans and coordinates NBC defense and smoke operations; provides NBC and smoke information for estimates, such as NBC threat analysis, NBC posture/capabilities, area analysis for smoke use (threat and friendly), recommended MOPP levels and troop safety, etc.
 - b) Recommends NBC avoidance and protective measures to commander, such as dispersion, OPSEC, detection and avoidance of contamination, hardening of positions, and implementation of protective postures.
 - c) Briefs commander on concept of chemical support, chemical unit mission priorities, critical NBC and smoke events/actions, task organization, provides NBC/smoke overlay, MOPP levels and MOPP gear storage/access, MOPP gear life span once unsealed and used (with and without exposure to chemicals or water/rain), critical tasks for subordinate units, and provides vulnerability assessment.
 - d) Supervises NBC monitoring and reconnaissance efforts to find all contamination and maintains radiological exposure status.
 - e) Analyzes, prepares, and disseminates needed NBC reports.
 - 2) See CCF 27, Provide Decontamination.
- f. Plan survivability operations (ARTEP 71-2-MTP, Task 7-1-3909/3, 3909/4; FM 71-2, Chap 3, 4; FM 5-100, Chap 6, 7; FM 5-103, Chap 1; FM 3-3, Chap 1; FM 3-100, Chap 4, 10, 11)

- 1) The plan identifies the methods and resources required to protect the force in the combat zone. Included are construction of fighting and protective positions, other active measures to prevent enemy use of NBC on the TF, and passive measures to increase survivability.
 - a) Appropriate survivability missions are assigned to engineer forces and to maneuver co/tms.
 - b) Engineer execution matrix and synchronization matrix are provided that identify and prioritize the protective obstacles, fighting and protective positions to be constructed.
 - c) The plan includes guidance on type and number of positions (full hide, turret or hull defilade, supporting weapons, command posts; primary, alternate, supplementary) to be constructed within each subordinate unit area as well as the priority for each.
 - d) Individuals are identified to specifically site each fighting and protective position for construction.
 - e) The plan includes considerations for the use of multiple routes, dispersion, frequent moves, concealment, camouflage, smoke, deception, and OPSEC to avoid effective enemy fires and obstacles.
 - f) The plan includes provisions for reconnaissance, detection, alarms/signals, warning/reporting, marking, monitoring, and bypassing to avoid enemy NBC contaminated areas.
 - g) The plan provides for NBC hardening of positions, availability of protective equipment, targeting of threat NBC delivery systems, and automatic masking to protect the force from threat NBC actions.
- 2) See CCF 12, Employ Chemical Weapons; CCF 21, Overcome Obstacles; CCF 22, Enhance Movement; CCF 23, Provide Countermobility; CCF 27, Provide Decontamination.

9. Staff Compares Courses of Action (FM 101-5, Chap 4)

10. Commander Announces Decision (FM 101-5, Chap 4)

11. Staff Prepares OPORD/FRAGO (ARTEP 71-2-MTP, Task 7-1-3901/5; FM 101-5, Chap 4)

12. Issue the OPORD/FRAGO (ARTEP 71-2-MTP, Task 7-1-3901/7, 3902/8, 3904/11; FM 101-5, Chap 4; FM 71-2, App B; FM 71-123, Chap 1)

- a. Subordinate commanders, leaders and staff are briefed on their respective maneuver, coordination and support responsibilities necessary for mission accomplishment.
- b. Subordinate commanders and leaders are briefed on their priorities for engineer support.

13. **Refine the Plan** (ARTEP 71-2-MTP, Task 7-1-3901/8; FM 101-5, Chap 4)
 - a. Subordinate commanders develop their plans, identify support requirements, evaluate engineer support available, and report shortfalls to task force.
14. **Perform reconnaissance and surveillance** (ARTEP 71-2-MTP, Task 7-1-3002/3, 3007/1, 3008/1, 3027/1, 3905/2, 3906/4, 3906/5, 3909/2; FM 71-2, Chap 3; FM 34-2-1; FM 3-4, Chap 3)
 - a. Reconnaissance is initiated by the task force to identify, locate, confirm, and monitor threat activities; combat information is reported to higher and adjacent headquarters.
 - 1) Contaminated areas affecting unit operations are detected, identified, marked and reported.
 - 2) Suitable sites for smoke and decontamination operations are located.
 - 3) Threat NBC capable delivery systems are located and targeted.
 - b. See CCF 2, Collect Information; CCF 3, Process Information; CCF 4, Disseminate Intelligence.
15. **Perform counter reconnaissance actions** (ARTEP 71-2-MTP, Task 7-1-3905/4, 3028/2, 3028/3, 3909/3; FM 71-2, Chap 4)
 - a. Task force initiates actions to defeat, disrupt or deny threat reconnaissance activities.
 - 1) Security is established early and well forward.
 - 2) Security forces to front, flanks, and rear are properly utilized.
 - b. Subordinate units employ local security.
 - c. See CCF 6, Engage Enemy with Direct Fire and Maneuver; CCF 19, Direct and Lead Unit During Preparation for the Battle; CCF 25, Provide Operations Security.
16. **Maintain operations security** (ARTEP 71-2-MTP, Task 7-1-3028; FM 71-2, Chap 2)
 - a. The task force performs countersurveillance/counterreconnaissance activities to deny the threat information on position locations and construction.
 - b. The task force employs passive security measures such as covering/removing vehicle markings, camouflage, concealment, position security, noise and light discipline, operating during limited visibility, challenge and password, etc.
 - c. Position preparation is hidden from visual observation.
 - d. Subordinate unit local security measures are coordinated at task force level to insure full coverage.
 - e. See CCF 25, Provide Operations Security.

ENHANCE PHYSICAL PROTECTION PREPARATION TASK LIST

See CCF 19 for a detailed analysis of the command and control of the preparation process and all preparation tasks. Key input/output and products of the process critical for CCF 24 are listed at pages 22 through 23. Preparation tasks 17 through 25 identified in this list are the CCF 19 tasks. The additional tasks and the subordinate tasks identified are those tasks considered by the analyst to be critical to successful preparation for enhancing the physical protection of the force. Tasks are not necessarily listed in chronological order. Some tasks are performed concurrently and/or at different echelons in the task force. The chronological or sequential relationship of the tasks is shown in the charts at pages 12-14. Critical tasks that are performed at levels below task force are also listed as sub-paragraphs of the task force tasks and are sub-titled as "Company/ team", "Platoon", or "Engineer company" tasks. Only company and platoon tasks considered critical to task force success are listed. References are shown in parenthesis (..) after the task title. Titles not taken directly from the MTP are marked with an asterisk (*).

17. **Command Group Conducts and Receives Briefings** (ARTEP 71-2-MTP, Task 7-1-3903/2; FM 71-2, Chap 2; FM 101-5, Chap 5)
 - a. Conduct briefbacks (ARTEP 71-2-MTP, Task 7-1-3901/7, 3903/2; ARTEP 71-1-MTP, Task 17-2-0101; FM 71-2, Chap 2; FM 71-123, Chap 2; FM 71-1, Chap 2)
 - 1) The sequence of mission events, combat and support responsibilities, and command relationships are briefed by subordinate commanders and leaders down to platoon level.
 - 2) Subordinate leaders demonstrate an understanding of their respective protection/survivability responsibilities, priorities for fighting/protective position construction, engineer assets available to the units, and responsibilities for control of assets during construction and movement.
 - 3) Priorities and schedules for mobility/countermobility versus survivability activities are confirmed and verified.
 - b. See CCF 19, Direct and Lead Unit During Preparation for the Battle.
18. **Command Group/Command Posts Monitor, Supervise, and Direct Execution of Force Protection Operations and Activities** (ARTEP 71-2-MTP, Tasks 7-1-3028/8, 3904/6, 3905/2, 3905/4)
19. **Command Group/Command Posts Monitor, Supervise, and Direct TF Mission Preparation** (ARTEP 71-2-MTP, Tasks 3001/5, 3901/9, 3901/10, 3904/12; FM 71-123, Chap 3)
20. **Commander, Commander's Representatives, and Staff Conduct Inspections and Visits** (ARTEP 71-2-MTP, Tasks 7-1-3903/2; FM 71-2, Chap 2)

- a. **Conduct pre-combat checks *** (Company/team and engineers) (ARTEP 71-1-MTP, Task 17-2-0101/11; ARTEP 5-145-31-MTP, Task 05-2-0114)
 - 1) The operational readiness of company/team or subordinate elements is confirmed.
 - 2) Maintenance readiness of weapon systems, combat vehicles, mission essential equipment (chemical protection and decontamination) and communications is confirmed.
 - 3) Material readiness of ammunition, fuel, and construction equipment is confirmed.
 - 4) Personnel readiness of uniform and equipment, accountability, camouflage, and knowledge of mission and responsibilities is confirmed.
 - 5) Mission essential equipment prepared and checked, with special emphasis on checking NBC warning, detection, monitoring, and decontamination equipment.
 - 6) Suitability and adequacy of fighting and protective positions, camouflage, etc. is confirmed.
 - 7) See CCF 19, Direct and Lead Unit During Preparation for the Battle.
- 21. **Task Force Conducts Rehearsals** (ARTEP 71-2-MTP, Task 7-1-3901/7, 3024/7; FM 71-2, Chap 2; FM 71-123, Chap 2; FM 90-13-1, App D; FM 101-5, App M)
- 22. **Task Force Plan Modified and Refined** (ARTEP 71-2-MTP, Tasks 7-1-3901/8, 3904/12)
 - a. Verify IPB product (FM 71-2, Chap 2; FM 34-3 Chap 4; FM 3-100, Chap 2, 4)
 - 1) Available assets are used to determine threat disposition, capabilities, and probable courses of action.
 - 2) The threat situation template is verified and/or updated.
 - 3) Threat capabilities are verified (presence and location of NBC delivery means).
 - 4) Threat dispositions are verified (presence and use of NBC equipment or personnel).
 - 5) Threat strengths are determined (increase in enemy NBC protective posture).
 - 6) Threat weaknesses are determined.
 - 7) Probable threat courses of action are determined.
 - 8) See CCF 2, Collect Information; CCF 3, Process Information.
 - b. Disseminate intelligence and combat information * (ARTEP 71-2-MTP, Task 7-1-3906/7, 3905/3; FM 71-2, Chap 2; FM 3-100, Chap 3)

- 1) Subordinate elements are aware of current threat situation within their area of responsibilities.
- 2) Subordinate elements are aware of the friendly situation for higher, adjacent, and lower units.
- 3) The NBC Warning and Reporting System (NBCWRS) is continually used to collect, evaluate, and disseminate information, reports and warnings of NBC activities.
- 4) See CCF 4, Disseminate Intelligence.

23. **Command Post (TAC, TOC, CTCP) Operations** (ARTEP 71-2-MTP, Tasks 7-1-3401, 3035, 3036, 3902/9, 3913)

24. **Liaison and Coordination with Higher, Adjacent, Supported, and Supporting Elements** (ARTEP 71-2-MTP, Tasks 7-1-3003/2, 3010/2, 3016/1, 3902/10)

25. **Command Group/Command Posts Position to Control the Battle** (ARTEP 71-2-MTP, Tasks 7-1-3401, 3035, 3036, 3902/9, 3913)

26. **Prepare for combat** (ARTEP 71-1-MTP, Task 17-2-0101; FM 71-123)

- a. Upon receipt of the OPORD, company/teams and other subordinate units/elements perform a mission analysis and issue warning orders with identified tasks/missions and a timeline.
- b. Courses of action are developed and the leader makes a tentative plan.
- c. Reconnaissance is conducted to determine or confirm information on enemy, terrain, routes and positions.
- d. The plan is completed, issued to subordinates, and the unit is task organized to accomplish the mission.
- e. Specific physical protection issues, measures, or requirements are identified.
- f. Plans are made to take the necessary measures; resources (equipment, supplies, construction support, etc.) required to accomplish protective measures are identified and requested.
- g. See CCF 5, Conduct Tactical Movement; CCF 6, Engage Enemy with Direct Fire and Maneuver.

27. **Position forces ***

- a. Maneuver forces (mounted and dismounted) are positioned and employed appropriate to the threat, astride enemy avenues of approach (ARTEP 71-2-MTP, Task 7-1-3008/1, 3009/1; FM 71-2, Chap 4).

- 1) Battle positions for the mounted elements (tank and TOW) facilitate their maneuver capability, afford the ability to move on covered and concealed routes between battle positions, provide for mutual support to adjacent units, and allow for direct fire/flanking fire engagements of threat systems from covered and concealed, prepared positions.
- 2) BFVs for dismounted units are positioned to facilitate link-up and movement of infantry elements, maneuver, and to provide the ability to engage threat systems from covered and concealed positions.
- 3) Dismounted units are positioned to block threat mounted and dismounted approaches where not exposed to standoff fires and where they can engage threat systems from covered and concealed positions.
- 4) Scouts, GSRs, and other security elements are positioned to detect threat positions/movement, provide early warning, and accomplish collection tasks.
- 5) Mortars are positioned to perform assigned missions, occupy protective positions, and are prepared to displace by section.
- 6) Positions are specifically and individually sited on the ground by the maneuver leader.
- 7) Planning and siting of, at least some, positions is expedited so that digging can begin as soon as construction assets arrive in the unit area, maximizing utilization of critical assets.
- 8) See CCF 6, Engage Enemy with Direct Fire and Maneuver.

b. Air defense elements are linked up with their assigned task force elements, positioned, and critical/vulnerable elements are protected. (ARTEP 71-2-MTP, Task 7-1-3004/1, 3005/1, 3911/4; FM 71-2, Chap 6)

- 1) Two-way communication is established between air defense elements and supported task force elements.
- 2) Air defense elements have a current copy of the task force operations graphics, the scheme of maneuver and concept for supporting fires.
- 3) Command relationships for air defense elements are confirmed.
- 4) See CCF 16, Take Active Air Defense Measures.

c. Engineer elements are task organized and positioned to support the task force scheme of maneuver. (ARTEP 71-2-MTP, Task 7-1-3004/1; ARTEP 5-145-31-MTP, Task 05-2-0114; FM 71-2, Chap 6; FM 5-100, Chap 6, 7)

- 1) The engineer task organization is tailored to meet adjusted priorities.
- 2) Engineers are positioned to accomplish their assigned missions.
- 3) Task organization occurs as soon as possible after the OPORD is issued.

- 4) See CCF 21, Overcome Obstacles; CCF 22, Enhance Movement; CCF 23, Provide Countermobility.

28. Control engineer assets * (FM 71-2, Chap 6; FM 71-123, Chap 4; FM 71-1, Chap 4, 6)

- a. Task force establishes system to maintain control over engineer assets as mobility, countermobility and survivability tasks are performed.
 - 1) Engineer assets may be controlled under the senior task force engineer or by attachment to subordinate companies.
 - 2) The use of available dozer assets for obstacle and position construction must be carefully coordinated and prioritized.
 - 3) As engineer assets shift from supporting one unit to another, the gaining unit is responsible for locating and guiding the assets to the new locations.
 - 4) The maneuver commander and the engineer must jointly site obstacles and positions to ensure direct fire coverage of obstacles and engagement areas from positions as sited. Every vehicle fighting position must be physically sited by the vehicle commander.
 - 5) Maneuver commander needs to establish a "CINC Bulldozer" to ensure efficient use of scarce assets. Physical control of movement, exact siting(location and orientation) and marking of positions, fuel supply, and hand-off to next unit are some of the CINC's responsibilities.
 - 6) Engineer reports completion of obstacles and fighting/protective positions to maneuver unit and TF level asset controller per SOP.
 - 7) See CCF 21, Overcome Obstacles; CCF 22, Enhance Movement; CCF 23, Provide Countermobility.
- b. Company/team (FM 71-1, Chap. 6)
 - 1) The company commander ensures the integration of supporting engineer elements into the company effort, consistent with their assigned responsibilities and priorities.
 - 2) The company commander ensures that supporting elements are knowledgeable of the scheme of maneuver, correct positioning, their maneuver responsibilities, and their priority of effort.
 - 3) The company commander ensures that engineer construction assets are physically guided from position to position as fighting and protective positions are constructed.

29. Prepare fighting positions * (ARTEP 71-2-MTP, Task 7-1-3009/1, 3009/2; FM 5-100, Chap 6, 7, 8; FM 5-103, Chap 1, 2)

- a. Fighting positions are prepared for the protection of personnel and equipment directly involved in the battle; in accordance with the guidance and priorities established in Task 7f, above.
 - 1) Offensive operations:
 - a) Emphasis is on mobility and minimal fighting position construction is done.
 - b) During temporary halts or pauses, fighting positions are prepared by cutting reverse slope firing shelves or slots to improve existing terrain.
 - c) Priority for fighting positions at temporary halts should be antitank weapons, then tanks and other fighting vehicles.
 - d) Countermobility efforts are integrated as required to protect flank approaches.
 - 2) Defensive operations:
 - a) Soldiers and crews prepare own positions to the extent possible, engineers work on priority fortification requirements.
 - b) Key factors are proper siting in relation to the surrounding terrain and proper siting for the most effective employment of key weapons systems.
 - c) General priorities are defilade fighting positions for antitank weapons, tanks, other fighting vehicles, individual and crew served weapons systems.
 - 3) Construction of positions should not start until location and orientation are physically sited on the ground by the maneuver leader and the engineer; due to usual shortage of time and assets, siting must be expedited.
 - 4) See CCF 6, Engage Enemy with Direct Fire and Maneuver, CCF 21, Overcome Obstacles; CCF 22, Enhance Movement; CCF 23, Provide Countermobility.
- b. Platoons (ARTEP 7-8-MTP, Task 7-3/4-1021; ARTEP 17-237-10-MTP, Task 17-3-0227)
 - 1) Tanks and TOWs are placed in turret down/hull defilade positions, if available.
 - 2) Platoon leader and squad leader assign and adjust primary, alternate, and supplementary firing positions.
 - 3) Hull defilade or hide and fire positions are constructed.
 - 4) Positions are checked for camouflage, observation, fields of fire, overhead cover (if appropriate) and visibility from the enemy's direction.
- c. Engineers: Construct vehicle fighting positions (ARTEP 5-145-11-MTP, Task 05-3-0304; FM 5-103, Chap 3, 4)
 - 1) Engineer platoon constructs vehicle fighting positions providing protection from direct and indirect fire without restricting weapon system's capabilities.

- 2) Engineer coordinates with maneuver commander to determine type and location of required positions, individual position locations are jointly sited.
- 3) Engineer estimates completion time and maneuver commander establishes priorities for construction.
- 4) Engineer platoon constructs hasty and deliberate positions to standard in accordance with established priorities.
- 5) Positions are generally constructed as hull defilade positions, then improved to provide concealed access ramp/route, hide positions, and turret defilade.
- 6) Spoil is flattened or removed to avoid identifying the position and position's suitability is confirmed by having vehicle occupy the position at various stages of construction.

30. **Prepare protective positions *** (ARTEP 71-2-MTP, Task 7-1-3009/1, 3009/2; FM 5-100, Chap 6, 7, 8; FM 5-103, Chap 1, 2)

- a. Protective positions are prepared for protection of personnel and equipment not in direct contact with the enemy; in accordance with the guidance and priorities established in Task 7f, above.
 - 1) Offensive operations:
 - a) Positions are usually expedient positions with front and side protection, making maximum use of terrain.
 - b) Protective positions are prepared for indirect fire weapons (artillery, mortars, air defense), using dug in or parapet positions.
 - c) Positions are prepared for logistics positions and critical supplies, such as ammunition, POL, ground vehicles and aircraft.
 - d) Key command and control facilities may require protection with hardened positions.
 - 2) Defensive operations:
 - a) Soldiers and crews prepare own positions to the extent possible, engineers work on priority fortification requirements.
 - b) Protective positions are prepared for indirect fire weapons (artillery, mortars, air defense), using dug in or parapet positions.
 - c) Protective positions/hardened bunkers are required for key command and control facilities.
 - d) Positions are prepared for logistics positions and critical supplies, such as ammunition, POL, ground vehicles and aircraft.
 - 3) See CCF 6, Engage Enemy with Direct Fire and Maneuver, CCF 21, Overcome Obstacles; CCF 22, Enhance Movement; CCF 23, Provide Countermobility.

- b. Engineers: Construct vehicle protective positions, protective earth walls and berms, bunkers, and shelters (ARTEP 5-145-11-MTP, Task 05-3-0305, 0311, 0312; FM 5-103, Chap 3, 4)
 - 1) Engineer platoon constructs vehicle, and other, protective positions providing protection from direct and indirect fire without restricting the vehicle/system's capabilities.
 - 2) Engineer coordinates with maneuver commander to determine type and location of required positions (wooded areas, reverse slopes and natural defilades are used whenever possible).
 - 3) Engineer estimates completion time and maneuver commander establishes priorities for construction.
 - 4) Engineer platoon constructs parapet positions for indirect fire and ADA systems, insuring that the parapets do not interfere with direct howitzer fire and ADA fields of fire.
 - 5) Engineer platoon constructs deep-cut vehicle positions for support vehicles in accordance with established priorities.
 - 6) Walls are stabilized and positions are camouflaged.
 - 7) Earthen walls, berms, bunkers and shelters are constructed to provide protection for various command and control, communications, logistics and maintenance operations against direct and indirect fire.

31. Avoid enemy NBC operations * (FM 3-3, Chap 1, 3, 4; FM 3-100, Chap 2,4,10,11)

- a. A key fundamental of NBC defense activities is to avoid NBC attack and their effects.
 - 1) Passive avoidance measures are those measures a unit takes to reduce the likelihood of NBC attack, regardless of the status of NBC warfare. TF takes measures such as:
 - a) Avoiding detection through concealment, camouflage, use of smoke, OPSEC, electronic and communications security, ECM and ECCM, noise and light discipline, and deception operations.
 - b) Hardening and improving positions to increase cover and concealment.
 - c) Maintaining dispersion, retaining mobility, and avoiding positions that can be easily isolated with NBC weapons.
 - 2) Active avoidance measures are those measures a unit takes to specifically avoid, control, or mitigate NBC hazards. TF takes measures such as:
 - a) NBC reconnaissance and contamination detection, identification, marking, monitoring, and reporting.
 - b) Placement and use of alarms, use of signals, and use of the NBC Warning and Reporting System.

- c) Control of contamination by bypassing contaminated areas, crossing areas only with mission critical personnel and equipment, and encapsulating or covering personnel and equipment that must be exposed to the contamination.
 - b. See CCF 1, Conduct Intelligence Planning; CCF 2, Collect information; CCF 25, Provide Operations Security; CCF 26, Conduct Deception Operations.
- 32. **Perform combat service support operations** (ARTEP 71-2-MTP, Task 7-1-3912; FM 71-2, Chap 7; FM 71-123, App A; FM 3-3, Chap 6; FM 3-100, Chap 2, 3; FM 3-101, App B)
 - a. Resupply task force subordinate elements. LOGPAC configuration and distribution ensures:
 - 1) Organic and nonorganic task force elements receive adequate resupply of Class III, IV, V, IX, and Class IIIZ and VIIIZ (chemical operational supplies, such as fog oil and decontaminants, and expendable chemical supplies, such as MOPP gear, filters, protective wraps, etc.).
 - 2) Additional requirements for Class V to support obscuration missions is considered.
 - 3) Class IV and engineer Class V is distributed in compliance with execution matrix or established priorities, and is delivered to the correct unit at the correct location on time.
 - b. Conduct maintenance activities. TOC tracks status of engineer construction assets and prioritizes repair of construction assets and weapons systems:
 - 1) The repair of engineer/combat vehicles is performed as far forward as the situation allows.
 - 2) Vehicle recovery operations conform with established procedures.
 - 3) The unit maintenance collection point accomplishes recovery and repair.
 - c. Position and operate task force trains.
 - 1) The combat trains remain within effective supporting distance of the maneuver elements.
 - 2) The combat trains are positioned in an area which effectively supports cover and concealment, facilitates movement, and facilitates communications.
 - 3) The trains move as required to maintain positioning for continuous responsive support.
 - d. Preparations are made to conduct supply, maintenance, personnel and medical operations in MOPP in contaminated areas and/or with contaminated equipment, personnel, or casualties.
 - e. Prepare for emergency resupply * (ARTEP 71-2-MTP Task 7-1-3912-3; FM 71-2, Chap 7; FM 3-100, Chap 2; FM 3-101, App B)

- 1) Adequate quantities of Class III and V are positioned for immediate distribution to the maneuver elements, organic and nonorganic.
- 2) Class III is packaged for immediate use (fuel tankers filled and operational), positioned for ready access, and protected from destruction or contamination.
- 3) Class V is packaged for immediate use, positioned for ready access, and protected from destruction or contamination.
- 4) Class IIZ and VIIZ (chemical decontaminants and equipment, protective masks, and clothing) may need to be included if operating in NBC environment.
- f. See CCF 19, Direct and Lead Unit During Preparation for the Battle; CCF 27, Provide Decontamination; CCF 28, Provide Transport Services; CCF 29, Conduct Supply Operations; CCF 31, Maintain Weapons Systems and Equipment; CCF 33, Treat and Evacuate Battlefield Casualties; CCF 34, Conduct Enemy Prisoner of War (EPW) Operations; CCF 38, Evacuate Non-combatants from Area of Operations.

33. **Prepare troops for combat *** (FM 3-4, Chap 2; FM 22-9; FM 22-100, Chap 8, 9; FM 26-2)

Note: Measures must be taken to reduce the physiological and psychological factors caused by environmental as well as situational conditions. These conditions result in stresses which can lead to battle fatigue, reducing combat strength and impairing unit performance. Many measures, such as developing physical fitness or training in MOPP, can be continued in theater but must be accomplished before deployment. Counter NBC measures may include inoculations or other medication to prepare soldiers for exposure to chemical or biological agents.

- a. Take measures to insure leaders and soldiers recognize the signs of stress and battle fatigue.
- b. Understand the effects of continuous operations (CONOPS) and sleep loss.
- c. Take action to protect soldiers from or to prevent battle fatigue. Measures must be taken to keep track of operating hours of engineer equipment operators and maintenance personnel. Operators and mechanics must be scheduled and rotated into a sleep/rest cycle to prevent injury/accidents from fatigue.
- d. Understand the effect of operating under NBC conditions.
 - 1) All actions take longer and require more soldiers, leaving less time for rest and aggravating sleep deprivation.
 - 2) Jobs take more energy and soldiers need more rest.
 - 3) Leaders are often the first casualties to heat exhaustion because there is more to supervise, it takes longer and takes more effort; leaders are more active, sleep less, delegate less, and fail to pace themselves.
 - 4) Normal activities such as face to face communications, operating equipment, map reading, using a radio, firing weapons, maintenance, etc. are more difficult with performance and effectiveness declining, especially after six hours.

- 5) Onset of stress and battle fatigue symptoms discussed above is accelerated and aggravated.
- e. Take preventative measures to slow performance degradation during NBC operations.
 - 1) Build confidence, unit cohesion and acclimatize troops through realistic training in MOPP 4.
 - 2) Pair experienced soldiers with inexperienced "buddies" when possible.
 - 3) Enforce command drinking to reduce dehydration and heat casualties.
 - 4) Cross train crews and other critical positions.
 - 5) Plan and enforce good eating, drinking and sleeping discipline; establish and enforce a command sleep and rest program.
 - 6) Keep soldiers accurately and fully informed, tell them what you expect.
 - 7) Develop procedures for personal and unit identification in MOPP.
 - 8) Keep plans simple.
- f. Take leader's actions to counter MOPP degradation, sleep loss and fatigue.
 - 1) Give simple directions and complete, clear, and precise orders.
 - 2) Repeat and get feedback on all orders and directions.
 - 3) Increase communication and personal contact with subordinates.
 - 4) Develop physical fitness in soldiers (muscular strength, endurance, and aerobic fitness).
- g. See CCF 18, Plan for Combat Operations; CCF 19, Direct and Lead Unit During Preparation for the Battle; CCF 20, Direct and Lead Unit in Execution of Battle.

34. **Prepare for NBC operations *** (ARTEP 71-2-MTP, Task 7-1-3910/2, 3910/3, 3910/7; FM 71-2, App E; FM 3-3, Chap 2)

- a. Task force elements are prepared to quickly implement NBC protective measures and are aware of the NBC threat, location of contaminated areas, and their NBC responsibilities. The task force accomplishes:
 - 1) Rehearsal of NBC procedures.
 - 2) The operational readiness status of all task force NBC equipment is verified.
 - 3) Subordinate units emplace chemical alarms and monitoring equipment, collect and report NBC information; contaminated areas within the task force's area of operation are identified and marked.

- 4) TF consolidates and forwards NBC reports to higher and the locations of identified contaminated areas are disseminated to all subordinate elements.
- 5) The effects of contaminated areas are estimated and downwind hazard information is calculated and disseminated.
- 6) Chemical/biological monitoring and survey requirements are determined, NBC recon is coordinated.
- 7) Platoon radiation status charts are screened for possible overexposure.

- b. The Chemical Officer predicts the potential effects of nuclear weapons employment for both friendly forces and enemy forces.
- c. Recommendations, resulting from a nuclear vulnerability analysis, indicate task force actions for a reduction of unacceptable vulnerabilities.
- d. Automatic masking criteria is established and commander's guidance on operating in a contaminated environment is disseminated.
- e. See CCF 12, Employ Chemical Weapons; CCF 27, Provide Decontamination.

ENHANCE PHYSICAL PROTECTION EXECUTION TASK LIST

See CCF 20 for a detailed analysis of the command and control of the execution phase and all execution tasks. Key input/output and products of the process critical for CCF 24 are listed at pages 22 through 23. Execution tasks 35 through 40 identified in this list are the CCF 20 tasks. The additional tasks and the subordinate tasks identified are those tasks considered by the analyst to be critical to successful execution of actions to enhance the physical protection of the force. Tasks are not necessarily listed in chronological order. Some tasks are performed concurrently and/or at different echelons in the task force. The chronological or sequential relationship of the tasks is shown in the charts at pages 12-14. Critical tasks that are performed at levels below task force are also listed as sub-paragraphs of the task force tasks and are sub-titled as "Company/team", "Platoon", or "Engineer company" tasks. Only company and platoon tasks considered critical to task force success are listed. References are shown in parenthesis (..) after the task title. Titles not taken directly from the MTP are marked with an asterisk (*).

35. TF command posts locate where they can control the battle (ARTEP 71-2-MTP, Task 7-1-3901/11; FM 71-100, Chap 1)

- a. Position command element/TOC (ARTEP 71-2-MTP, Task 7-1-3901/11, 3903/1, 3904/1, 3904/14; FM 71-2, Chap 2)
 - 1) The command group, Tactical Command Post (TACP), and TOC are correctly positioned on terrain that facilitates security, cover and concealment (hasty or prepared protective positions), observation of battle area, and communications.
 - 2) The combat trains command post (CTCP) is positioned to maintain the same communications as the TOC and is prepared to function as the TOC if required.
 - 3) See CCF 20, Direct and Lead Unit in Execution of Battle.
- b. Company/team (ARTEP 71-2-MTP, Task 7-1-3401, 3902/1; FM 71-2, Chap 2)
 - 1) The commander is able to see the activities of, and communicate with, subordinate forces.
- c. Maintain communications (ARTEP 71-2-MTP, Task 7-1-3401, 3902/1; FM 71-2, Chap 2)
 - 1) Communication is maintained on the following nets between appropriate task force elements:
 - a) Command net.
 - b) Operations and intelligence net.
 - c) Administration and logistics net.
 - d) Special nets.
 - 2) Elements take prompt action to restore lost communications.

- 3) OPSEC considerations are applied to all electronic communications (procedures, encryption, transmission time, etc.).
- 4) At least one command post (TACP, TOC, Alt CP) is always operational.
- 5) See CCF 20, Direct and Lead Unit in Execution of Battle.

36. **TF commander sees the battlefield**

37. **TF commander directs and leads the execution phase (ARTEP 71-2-MTP, Task 7-1-3901/12; FM 71-100, Chap 1)**

- a. Execute fire support (ARTEP 71-2-MTP, Task 7-1-3027/2, 3027/5, 3907/3, 3907/4, 3907/5, 3907/6; FM 3-100, Chap 3)
 - 1) Enemy NBC weapons and delivery systems are engaged.
 - 2) Friendly supporting fires do not result in fratricide.
 - 3) Friendly forces are not silhouetted by friendly FA smoke.
 - 4) See CCF 6, Engage Enemy with Direct Fire and Maneuver; CCF 7, Employ Mortars; CCF 8, Employ Field Artillery; CCF 9, Employ Close Air Support; CCF 15, Coordinate, Synchronize, and Integrate Fire Support; CCF 16, Take Active Air Defense Measures.
- b. React to enemy air attack (ARTEP 71-2-MTP, Task 7-1-3027/3027/2, 3027/5, 3907/4, 3908/4, 3908/5, 3908/7; FM 71-2, Chap 6)
 - 1) Enemy aircraft operating near or within the task force's area of operation are identified and their effects neutralized.
 - 2) No friendly aircraft are destroyed by task force air defense fires.
 - 3) Task force takes evasive action, dismounts ADA elements, and disperses as appropriate.
 - 4) See CCF 16, Take Active Air Defense Measures; CCF 17, Take Passive Air Defense Measures.
- c. Integrate fire support with scheme of maneuver ((ARTEP 71-2-MTP, Task 7-1-3911/6; FM 71-2, Chap 6))
 - 1) Task force supporting fires conceal its movement, obscure the enemy's weapons systems, and suppress enemy's movement.
 - 2) Supporting fires, placed on the objective, eliminate the enemy's ability to place effective direct fire on friendly forces.
 - 3) Smoke fired in front of the enemy and between the enemy and the task force conceal task force movement, positioning, and position construction/preparation.

- 4) See CCF 15, Coordinate, Synchronize, and Integrate Fire Support
38. **TF command posts track and support the battle (ARTEP 71-2-MTP, Tasks 7-1-3903/3, 3904; FM 71-123, Chap 1)**
 - a. Insure continuous engineer operations (FM 100-5, Chap 7; FM 71-123, Chap 4)
 - 1) Once initial positions and obstacles completed, engineer elements should continue to work in depth of TF sector.
 - 2) Construction assets should be used to continue to improve fighting positions in depth and to prepare fighting positions on secondary, alternate, or tertiary BPs.
 - 3) Engineers may be task organized to the reserves and used to construct obstacles and supplemental fortifications in depth.
 - 4) Engineers must follow the progress of the battle to avoid being exposed to the fight unless so planned.
39. **TF conducts battlefield update (METT-T based) (ARTEP 71-2-MTP, Tasks 7-1-3902/3, 3906/1, 3913/5)**
 - a. Conduct battlefield update (ARTEP 71-2-MTP, Task 7-1-3906/7)
 - 1) Maneuver commanders and leaders are given a current intelligence summary immediately prior to crossing the line of departure.
 - 2) See CCF 4, Disseminate Intelligence; CCF 19, Direct and Lead Unit During Preparation for the Battle.
40. **TF conducts the decision making process (accelerated) (FM 71-123, Chap 1)**
41. **Task Force consolidates and reorganizes (ARTEP 71-2-MTP, Tasks 7-1-3022, 3023)**
 - a. Consolidate and reorganize (ARTEP 71-2-MTP, Task 7-1-3022, 3023; FM 71-2, Chap 3)
 - 1) Task force is prepared to repel an enemy counterattack and to continue operations. CP/TOC is repositioned to control activities.
 - 2) Consolidation:
 - a) A hasty defense is established to include company/team orientation, direct and indirect fire control measures, and positioning in or preparation of hasty fighting and protective positions.
 - b) Security is established with early warning devices, chemical warning/alarms, OPs, scouts, and patrols.

- c) Reconnaissance and screening of the objective area/sector is performed.
- d) Contact, communication, and coordination is established/reestablished with all subordinate units.

3) Reorganization:

- a) Replace key leaders and reestablish chain of command.
- b) Redistribute weapons systems and personnel as required to form viable units/elements.
- c) Perform immediate resupply and crossleveling of ammunition, supplies, and fuel to provide minimum basic loads on all combat vehicles.
- d) Update threat NBC threat, TF vulnerability, and MOPP analysis.
- e) Personnel are accounted for and replacements brought forward with LOGPAC.
- f) Treat and evacuate all casualties.
- g) Evacuate all captured personnel, documents, and equipment.
- h) Report location and status to higher.

4) See CCF 6, Engage Enemy with Direct Fire and Maneuver; CCF 20, Direct and Lead Unit in Execution of Battle; CCF 28, Provide Transport Services; CCF 29, Conduct Supply Operations; CCF 31, Maintain Weapons Systems and Equipment; CCF 33, Treat and Evacuate Battlefield Casualties; CCF 34, Conduct Enemy Prisoner of War (EPW) Operations; CCF 38, Evacuate Non-combatants from Area of Operations.

b. Conduct emergency resupply * (ARTEP 71-2-MTP, Task 7-1-3913/13; FM 71-2, Chap 7; FM 3-101, App B)

- 1) Required Class III, V, and in some cases Class IIZ (chemical gear and supplies) are rapidly resupplied to requesting task force subordinate elements.
- 2) There are no organic or non-organic task force elements unable to complete their assigned mission as a direct result of a shortage of Class III, V, or IIZ.
- 3) See CCF 27, Provide Decontamination; CCF 28, Provide Transport Services; CCF 29, Conduct Supply Operations.

c. Control and conduct evacuation (ARTEP 71-2-MTP, Task 7-1-3033, 3912/5, 3912/6; FM 71-2, Chap 7)

- 1) Damaged vehicles and personnel casualties are displaced to the rear in accordance with established criteria and priorities.
- 2) Control vehicle recovery and repair.
- 3) Control personnel and casualty evacuation.

- 4) Preparations are made to evacuate contaminated equipment and personnel from contaminated areas and to conduct maintenance and medical operations in MOPP in contaminated areas and/or with contaminated equipment, personnel, or casualties.
- 5) See CCF 28, Provide Transport Services; CCF 31, Maintain Weapons Systems and Equipment; CCF 33, Treat and Evacuate Battlefield Casualties; CCF 34, Conduct Enemy Prisoner of War (EPW) Operations; CCF 38, Evacuate Non-combatants from Area of Operations.

d. Comply with commander's intent (FM 71-2, Chap 2)

- 1) Mission essential tasks are accomplished in accordance with planned operational concepts and modifications as directed by the commander.
- 2) Unit combat effectiveness is maintained throughout the duration of the mission.
- 3) The desired task outcomes are attained.

42. **Move tactically** (ARTEP 71-2-MTP, Task 7-1-3004; FM 71-2, Chap 3; FM 5-100, Chap 10, 11)

- a. While moving forward of the LD, the task force is prepared for enemy contact.

- 1) All-around security is maintained during movement and at halts, particularly to the front.
- 2) Terrain is used to mask movement, covered and concealed routes are identified/prepared between primary and alternate/supplementary positions
- 3) Fire support is used to mask movement and to suppress threat forces.
- 4) Elements maintain mutual support and an overwatch force is in position to support the lead element, which stays within 2/3 effective range of supporting fires.
- 5) Initial contact with the enemy is made by task force security elements.
- 6) See CCF 6, Engage Enemy with Direct Fire and Maneuver; CCF 7, Employ Mortars; CCF 8, Employ Field Artillery; CCF 9, Employ Close Air Support; CCF 15, Coordinate, Synchronize, and Integrate Fire Support; CCF 16, Take Active Air Defense Measures.

- b. Company/team (ARTEP 71-1-MTP, Task 17-2-0301; FM 71-1, Chap 3)

- 1) Movement is conducted in accordance with the order. Orientation, security, and mutual support are maintained.
- 2) Appropriate movement formations and techniques are used; actions are taken at halts and at critical points to identify, locate, and occupy temporary, terrain enhanced, fighting or protective positions; and all-round security is maintained.
- 3) Orientation is maintained; current location, location of suspected threat positions, and location of adjacent units is known.

- 4) Mutual support is provided by maintaining intervisibility between company elements, keeping elements within 2/3 maximum range of each other, and maintaining overwatch.
43. **Take action at halts** (ARTEP 71-2-MTP, Task 7-1-3004/6; FM 5-100, Chap 6; FM 5-103, Chap 2)
 - a. Task force disperses, occupies covered/concealed positions, and establishes all-round security.
 - b. Expedient fighting/protective positions are prepared making maximum use of terrain.
 - c. Additional positions are prepared and position improvement conducted if unit remains in halted position for longer periods of time.
44. **Perform NBC operations** (ARTEP 71-2-MTP, Task 7-1-3910/4, 3910/5, 3910/6, 3910/8, 3910/9, 3029; FM 71-2, App E; FM 3-3, Chap 2; FM 3-100, Chap 3)
 - a. Threat NBC attack is detected, avoided, reported, and hasty decontamination of personnel and equipment is accomplished, based on combat situation and commander's guidance.
 - 1) The task force protects its forces from nuclear weapons employment upon notification by using STRIKWARN messages, properly positioning and fixing vehicles, removing all radio antennas and RF cables and using protective positions.
 - 2) An accurate radiation history, by platoon, is maintained on task force personnel.
 - 3) The battalion control and assessment team is task organized to cope with NBC situation and the task force Chemical Officer ensures that the survey control parties are properly briefed.
 - 4) The task force marks, reports, disseminates location of, and avoids contaminated areas.
 - 5) The task force submits and responds to all NBC reports. NBCWRS is used to consolidate, analyze, and disseminate information on NBC hazards and activities.
 - 6) Effects of NBC hazards are estimated and chemical downwind hazard messages are prepared and sent.
 - 7) Subordinate units are given specific instructions (from Tac SOP) when TF receives nuclear or chemical attack warnings.
 - 8) Task force personnel comply with designated MOPP and initiate automatic masking when indicators such as threat smoke/artillery/rockets are employed, chemical alarms are activated, detector paper changes color, aircraft spray, or chemical/biological symptoms are observed.
 - 9) Task force decontaminates by priority and IAW commander's guidance.

- b. Company/Team and Platoon (ARTEP 71-1-MTP, Task 03-2-C013; ARTEP 7-8-MTP, Task 7-3/4-1021/14)
 - 1) Platoons employ the Automatic Chemical Agent Alarm System upwind from their positions.
 - 2) Automatic masking is done if alarm activates.
 - 3) Units report alarm detections to higher headquarters and perform other chemical detection and identification procedures, reporting results.
- c. See CCF 12, Employ Chemical Weapons; CCF 27, Provide Decontamination.

45. **Protect the force from enemy NBC operations *** (ARTEP 71-2-MTP, Task 7-1-3910, 3029; FM 3-100, Chap 4, 10, 11)

- a. Subordinate units assume directed MOPP levels, or higher level if indicated by circumstances.
- b. Occupy hardened, prepared positions (at least, positions with overhead protection even if only a poncho or tarp) if under chemical or biological attack.
- c. If moving, locate and occupy expedient shelters such as overpasses, tunnels, culverts, or built-up areas.
- d. Individuals should keep sleeves rolled down, wear headgear (and earplugs or headsets if nuclear detonation expected), and affix detector paper to their vehicles.
- e. Adjustments are made to work loads and schedules to account for degradation/heat exhaustion problems from operating in MOPP.
- f. If adequate warning received, all water, rations, supplies, and equipment not being used are covered or stored inside vehicles to avoid contamination.
- g. Appropriate first aid is given to injured individuals as soon as possible.
- h. Hasty decontamination is conducted as soon as feasible, unit moves out of contaminated area if possible.
- i. See CCF 12, Employ Chemical Weapons; CCF 27, Provide Decontamination.

46. **Operate in NBC contaminated areas *** (ARTEP 71-2-MTP, Task 7-1-3031; ARTEP 71-1-MTP, Task 17-2-0313, 0314; FM 3-100, Chap 4, 10, 11)

- a. Units select routes and positions that minimize exposure to contamination.
- b. Units continually monitor for NBC contamination while in contaminated areas.
- c. Only personnel essential for the immediate mission are exposed and operations are conducted with vehicles buttoned-up, if mission permits.

- d. Areas of likely increased contamination (excessive dust in nuclear area; low ground, brush, puddles in chemical/biological areas) are avoided, if possible.
- e. Externally stored equipment is moved inside or covered.
- f. Collective protection is used whenever possible/feasible to provide a contamination free environment for selected personnel (vehicle ventilated facepiece systems, over-pressure systems, etc.).
- g. CSS planning for continuous supply of consumable and expendable items (filters, MOPP suits, decon kits, detector kits, plastic bags, ponchos, rain gear, etc.) is essential for collective protection systems to be effective.
- h. Consideration is given to degraded capabilities when operating in MOPP (physical skills degraded; vision, hearing, stamina reduced; tasks take longer, need more people, require more support, etc.).
- i. Decontamination will be conducted as soon as possible, depending on the tactical situation, mission, degree of contamination, and decontamination resources available.
- j. See CCF 12, Employ Chemical Weapons; CCF 27, Provide Decontamination; CCF 29, Conduct Supply Operations.

47. **Perform hasty decontamination** (ARTEP 71-2-MTP, Task 7-1-3032; ARTEP 71-1-MTP, Task 03-2-C031; FM 3-100, Chap 4, 10; FM 3-5, Chap 2)

Note: Decontamination is conducted as soon as possible to stop the erosion of combat power through degradation and to reduce casualties. Commander will consider the protective life expectancy of the MOPP gear being used and evaluate the degradation of remaining contaminated vs. allowing weathering or doing a partial, hasty or deliberate decontamination.

- a. MOPP gear can only be expected to protect personnel for its established life span, once exposed to the environment. A decontamination decision must be made while the troops are still protected.
- b. At a minimum, soldiers conduct basic skills decontamination to remove NBC contamination from skin and personnel equipment by wiping down. On-board decon apparatus is used by operators and crew to spray down vehicles/equipment.
- c. Usually, during the conduct of an operation (attack, defend), a hasty decon is the most that will be done. Generally, deliberate decontamination operations are conducted in or to the rear of the BSA as a part of reconstitution operations.
- d. Commander determines what the mission requires to be decontaminated, prioritizes effort to insure critical weapons systems decontaminated first, and designates location for decon.
- e. Hasty decon may be conducted by unit with organic lightweight decontamination system (LDS) and is accomplished by using the LDS to wash down vehicles and by exchanging MOPP gear. Additional support can be requested, through command channels, from supporting chemical unit.

- f. Equipment and personnel are inspected after decon to insure completeness and NBC monitoring is continued.
- g. See CCF 27, Provide Decontamination

48. **Employ smoke** (ARTEP 71-2-MTP, Task 7-1-3004/5, 3027/5; FM 71-2, Chap 6; FM 3-100, Chap 6; FM 3-101, Chap 3)

- a. Smoke and obscurants are used to increase unit survivability and enhance force effectiveness by preventing the threat force from bringing effective direct or indirect fires to bear on the task force maneuver elements.
- b. Smoke is used to degrade threat target acquisition and guidance systems.
- c. Large area smoke screens are used to restrict threat mobility and ability to maneuver.
- d. Smoke accumulation in low areas is used to restrict threat use of aircraft and air assault forces by denying contour approaches and concealing landing zones.
- e. Smoke is used to conceal friendly units and activities and to deceive the threat as to friendly actions, locations and intentions.
- f. Smoke is used to attenuate the thermal and dazzle effects of nuclear weapons and the effectiveness of directed energy weapons.
- g. Unit distribution methods are required to supply smoke units with the Class III required to sustain smoke operations.
- h. See CCF 7, Employ Mortars; CCF 8, Employ Field Artillery; CCF 15, Coordinate, Synchronize, and Integrate Fire Support; CCF 28, Provide Transport Services; CCF 29, Conduct Supply Services.

49. **Mark and report obstacles ***

- a. Mark a minefield to allow avoidance by following units/elements. (ARTEP 5-145-11-MTP, Task 05-4-0110; ARTEP 71-2-MTP, Task 7-1-3909/5; FM 5-101, Chap 4, 5; FM 20-32, Chap 9)
 - 1) All known minefields within the TF area of operation are easily identifiable to friendly forces.
 - 2) Minefields are guarded until they are appropriately marked.
 - 3) Minefields are marked in accordance with established procedures.
 - 4) Entry and exit points and limits of lanes and gaps of minefields are marked.
 - 5) Markings must be visible at a distance, through smoke and dust, and at night (if required).
 - 6) In forward areas, markings are such that safe lane location is not exposed to the enemy.

- 7) See CCF 21, Overcome Obstacles; CCF 23, Provide Countermobility.
- b. Report obstacles (ARTEP 71-2-MTP, Task 7-1-3909/6; FM 5-101, Chap 4; FM 20-32, Chap 9)
 - 1) All information concerning obstacles, particularly breaches and bypasses, is rapidly reported to the task force TOC.
 - 2) TF TOC reports information concerning obstacles to the brigade TOC, and disseminates the information to task force subordinate commanders and adjacent unit commanders as it becomes known.
 - 3) See CCF 21, Overcome Obstacles; CCF 23, Provide Countermobility.

**CALL LESSONS LEARNED RELEVANT TO CCF 24
(EXTRACTS FROM LESSONS LEARNED BULLETINS)**

1. NTC Commander's Memorandum — November 1985

Smoke

The effectiveness of smoke varies markedly with the weather. Although smoke does provide protection, it can turn on an attacker. If it blows away or when an open area is encountered, the attacker is suddenly exposed. A massed formation silhouetted against smoke is a great target.

Defensive Chemical Measures

Formal NBC reports should not be transmitted on battalion and company command nets due to their disruptive nature. The preferred procedure is for platoons and companies to send initial spot reports on the command net, followed by NBC reports on the admin/log net.

MOPP posture decision, to include when to unmask, must be made at battalion level -- the first level with the staff to make a risk assessment.

Our chemical defense equipment works well when used by units with discipline, knowledge, and motivation. A systematic rather than a decentralized piecemeal integration of equipment is key. As an example, the company must plan the placement of its M-8 chemical alarms to provide coverage for alternate and supplementary as well as primary positions. Also, repositioning must occur as weather conditions change.

MOPP gear obviously degrades performance, but it is not a show stopper for well trained units.

Getting NBC warnings to elements not organic or attached to companies requires the use of all battalion nets, to include admin/log and mortar FDC. Each element in the task force area must monitor at least one battalion net, regardless of the support or command relationship.

Tank Positioning

Correct positioning allows tanks and TOWs to both survive and kill. Surviving is the key and is a function of two factors: (1) avoiding detection by the enemy; and (2) if detected, moving securely to a different firing position.

Use a full hide position if at all possible and stay in it until the enemy is in the area where you plan to kill him. A prone or dug-in observer forward gives a much smaller signature than a tank, even one that is in a good firing position.

Have a backdrop and avoid anything that catches the eye. Hilltops are death traps.

Position to the flank of an enemy approach and behind frontal cover. It is far easier for an attacker to acquire and kill targets to his front than those to his flank or rear.

Have covered routes into and out of firing positions.

The guideline of 75 meters or more between primary and alternate tank positions is clearly correct. Dispersion is also needed between wingmen. The greater the separation, the less likely that both will be suppressed and that detection of one will give the other away. Depth is also critical. Linear deployment almost always loses.

Do not construct berms. More than 20 feet of dirt is needed to be effective against a modern APFSDS round -- clearly impractical. They also make it easier for the attacker to spot the position.

Defense Techniques

Detailed defensive planning must be done on the ground. Quality weapon and obstacle positions surprise the enemy from unexpected locations. Whenever possible, positions and routes in and out should be set in (not just checked later) by leaders looking at them from the locations where the enemy is to be engaged.

Mobility, Countermobility and Survivability

Armored personnel carriers must carry a basic load of materials for individual and crew fighting positions.

In most cases, survivability positions should be prioritized over AT ditches. Regardless of general priorities, a specific schedule of work for each piece of earth moving equipment must be established. Use of limited blade assets is so critical that battalions should give maintenance priority to that equipment. Appointing a "Dozer CINC" -- an individual who coordinates the movement, refueling, and other care of bulldozers -- is a good idea. The function is so important that it is not inappropriate to give that responsibility to the Command Sergeant Major or S-3 Air.

2. CALL Newsletter No. 1 - 31 January 1986

Engineer Planning in the Defense

There are never enough engineers. Integration of engineer planning into the defensive troop leading procedures is a key element to the efficient and effective employment of engineers. The task force engineer must quickly brief his hasty engineer estimate in clear and concise terms that the commander understands. The commander must provide the engineer with priorities by specific task. Finally, responsibility for obstacles/positions must be a command responsibility, not just an engineer problem.

The engineer helps the commander complete his estimate by briefing engineer capabilities and needs, recommended employment, and brigade directed targets. Needs are shown as additional haul capability (trucks required) and Class IV/V shortage.

The commander must provide the engineer with specific guidance to include priorities by task, intent, and coordination.

Positions cannot be dug in until company, platoon, and individual vehicle positions are verified on the ground by the engineer and commanders.

Commanders and engineers must both be responsible for obstacles and positions. The engineers have the technical knowledge to do the work but the maneuver leader must site the obstacle/position to support the defensive plan. Commanders must be primarily responsible for the obstacles/positions to improve their effectiveness.

Combat Service Support

All CSS players focus on pushing their services forward without waiting for a unit request. An example of a push supply system is sending forward NBC filters and protective over-garments without a unit request after a chemical attack.

3. CALL Newsletter No. 2 - 1 May 1986

Construction of Deliberate Vehicle Fighting Positions

Either a full turret defilade or a hide position is an essential, not a desirable, feature of the position. The "firing step" must be sloped so the firing vehicle may adjust its degree of hull defilade to allow various combinations of defilade and fields of fire. Construction of proper fighting positions which allow the defender to properly disperse weapons is essential to the defense.

The chain of command must select the location of fighting positions. The position must be checked by a vehicle to ensure adequate coverage of assigned sectors. The units' leaders must supervise construction to ensure that the position is the right depth before letting the bulldozer move.

Use of backhoes and scoop loaders greatly reduces construction time for dismounted fighting positions. Construction of fighting positions for dismounted infantry should receive a high priority due to their vulnerability to indirect fire.

Squad APCs must by SOP carry a basic load of materials required to construct overhead cover. Construction of infantry fighting positions must be carefully monitored to ensure that soldiers can both effectively fight and observe while protected by overhead cover.

The Stinger Team in the Heavy Task Force

In the defense, Stinger crews must get out of the tracks and into firing positions away from company teams.

4. CALL Newsletter No. 3 — September 1986

Mobility/Countermobility/Survivability

Fire creates security, forces the enemy to deploy, and increases the surprise of an obstacle. To maximize synchronization of obstacles and fire, place obstacles where fire is already effective.

Air Defense

Another means of increasing the survivability of a Stinger team is to dig them in with adequate overhead cover during defensive operations. It is the responsibility of the SHORAD platoon leader to ensure that his Stinger assets are dug in.

5. **CALL Newsletter No. 4 - 27 February 1987**

Command and Control of Task Force Engineer Assets

Integrate engineers into all defensive training to build teamwork and identify the myriad of small problems which hamper execution. All fighting vehicle crews, engineer equipment operators and their supervisors must know how to construct vehicle fighting positions. Construction of vehicle fighting positions is so decentralized that repetition of established drills is essential.

Streamlining NBC 1 (Chemical) Reporting Procedures

Transmission of messages under the NBC reporting system can be reduced by:

- Users fully understanding the intent of the system and why certain reports are essential. The system is designed as a means of disseminating intelligence; not to jam nets with an almost continuous flow of NBC reports.
- Submitting only the essential line items of information.
- Using alternate nets to submit lengthy reports.
- Developing clear, concise instructions in unit SOPs which specify the abbreviated reporting procedures.

6. **CATA Commander's Comments, The CS Team — May 1987**

Survivability

A properly dug in platoon can readily take out a battalion; therefore, maneuver leaders must supervise the construction of fighting vehicle positions. Full turret defilade or a covered route to a full hide/defilade is absolutely required. The position must be sloped and berms must be avoided.

7. **CALL Newsletter No. 5 - 1 July 1987**

Maneuver

Digging in, laying mines, stretching wire, and filling sandbags are tiring activities under the best of circumstances. When combined with the effects of heat, cold, sustained/fast paced operations, and MOPP, they become even more exhausting. Soldiers and leaders fall asleep and the enemy penetrates the unit.

Junior leader initiative must be planted and nurtured if a unit is to beat fatigue. Everyone must sleep sometime, at least for four hours daily. Junior leaders and soldiers must be able to make decisions and take action in the absence of more senior leaders. A sleep plan must be established and used if the unit is to maintain a 24 hour capacity.

8. **CALL Newsletter No. 88-3: Heavy Forces — Fall 1988**

Shoot Them in the Back

Reverse slope positions provide excellent cover from long range direct fires and an edge in killing the enemy. If the enemy comes over your hill, you can shoot him in the belly plate before he can get his guns depressed far enough to shoot back. If the enemy bypasses your hill, you will be in a good position to fire and maneuver into his flank and rear.

Maintain Positive Control of Engineer Work

Mass engineer headquarters forward: Habitually employ an engineer company headquarters with each committed battalion task force and involve them in the planning process.

Fix Responsibility For Engineer Effort With Maneuver Commanders: Responsibility for success or failure ultimately resides with the maneuver commander. Both engineer and maneuver elements execute engineer tasks. Regardless of who does the work, the task supports a maneuver commander's plan. The simplest method to coordinate intent, logistics support, work party security, siting, etc. is to give the mission to a maneuver company commander and assign engineer support as required.

Jointly and physically site all engineer work: The maneuver commander must site the engineer work with the engineer present to avoid ineffective positioning.

Employ Engineer Execution Matrices: Engineer execution matrices and clear detailed commander's guidance, continually monitored by the TOC/command group assures that responsibility stays fixed and receives command emphasis.

Dig In - What Is Seen Is Killed

Especially in open terrain, survivability positions are normally more important than anti-tank ditches. A tank platoon properly dug into two step positions can destroy a battalion. As such, earth moving assets normally focus initially on survivability.

Since infantry can dig themselves in, normally the infantry works on digging in before assisting the engineers emplace mines etc. Once the task force completes crew served positions with overhead cover they reinforce the engineer soldiers emplacing obstacles to the maximum extent possible.

Employ "basic loads" of Class IV (sand bags, pickets, etc.) with all vehicles to expedite rapidly digging in. The S-4 pushes forward replacement basic loads during transition to the defense in standard infantry platoon packages.

Employ reverse slopes as much as possible and camouflage frontal parapets for individual/crew positions. This avoids the obvious bunker positions easily seen and destroyed by direct fire.

Ensure all maneuver/engineer leaders and heavy equipment operators drill the correct construction of fighting vehicle positions at home station. This is an excellent NCODP, ODP, or concurrent training station.

NBC Defense Requires Discipline

MOPP decisions, to include unmasking, should be made at the task force TOC after a thorough risk assessment. Just because a M-256 kit indicates an "all clear" in the company area does not mean it is safe to unmask. Contaminates may remain just upwind in another area.

The Company NBC NCO should be forward with either the commander or XO. He cannot perform his battlefield duties from the field trains. This requires on the spot knowledge of terrain and conditions.

Blood agents break down mask filters, rendering them ineffective. S-4's must have replacement filters planned for and prepositioned for quick exchange in case of exposure.

All units, regardless of command relationship, operating in the task force sector should monitor at least one of the TF nets for NBC warnings. The task force should issue warnings on command, A/L and fire support nets to ensure the widest possible dissemination.

Make Your CSS Survivable

Think "OCOKA". S4s and other CSS officers can enhance their survivability through careful terrain analysis of proposed locations. Look for terrain that you can easily defend and reinforce with hasty obstacles. Avoid obvious armor and helicopter avenues of approach. Lay out the trains with an eye towards security, defense, rapid dispersion, and withdrawal.

The commander must consider allocating survivability assets to the FSB based on the factors of METT-T. The majority of the FSB's equipment is thin skinned and highly vulnerable to all types of fires, small arms to artillery. A breakthrough by an MRP can pose a threat to the BSA of disproportionate magnitude. A single tank could lay waste to an entire FSB. Engineer support, air defense coverage, and an allocation of more tank killing systems (Vipers and Dragons) could significantly enhance the survivability of the FSB. Terrain allocation for the BSA should maximize existing cover, concealment, and access to ingress/egress routes. Artillery fire support should be included in the FSO's priorities and updated as the tactical situation changes. Also, combat power should be allocated (on order) to defend the BSA.

Train CSS officers to think tactically: We train combat arms officers to look at a piece of ground and envision fields of fire, avenues of approach, and key terrain. CSS officers, who have not received equivalent training, look at the same piece of ground and see a parking lot.

Train CSS soldiers better in individual soldier skills: The quality of fighting positions usually depends on the imagination of the soldier digging it because neither he nor his supervisors have been trained to construct them properly. The same goes for land navigation, first aid, and chemical defense. Trained soldiers kill; untrained soldiers die.

Push Logistics With the Warning Order

Concurrent with the warning order push standard logistics packages to subordinates. Don't wait for the OPORD or subordinate requests. Transportation is scarce and CL IV/V mission loads are enormous. S4s determine unique logistics requirements based on standard missions (such as offense or defense) in garrison. Then they organize standard (SOP) means to transport and distribute this materiel. During operations they:

- Conform higher push packs on receipt of higher warning order.
- Allocate these push packs to subordinates IAW SOP.

Request throughput of additional required materiel to lower echelons based on the OPORD, planning refinements and subordinate requests.

Employ Clear/Concise written Orders

Clear written orders greatly reduce the fog of war to tired leaders. They provide a checklist for exhausted leaders to remind themselves what their mission and commander's intent really is. Execution matrices, similar to the fire support execution matrix, are a method to simply portray the plan in a concise manner.

9. **CALL Newsletter No. 89-1: Non-Mechanized Forces - Spring 1989**

Security

Commanders can provide security to the force by countering the enemies reconnaissance efforts and maintaining aggressive local security. The S2 plans and executes counterreconnaissance in coordination with the S3 and the entire staff. The S2 cannot delegate the security effort to the companies. A centralized counter-reconnaissance plan is critical to success.

Detect enemy reconnaissance effort by employing multiple security elements and systems to provide depth to the counter-reconnaissance effort. Place more than one surveillance asset on each avenue of approach.

Ensure that individuals pick fighting positions which make the most of natural cover and concealment and offer good fields of fire. Leaders at all levels should double check these locations. Once a suitable site is selected, the priority goes to concurrently digging, clearing fields of fire, and camouflaging. Overhead cover and connecting trenches are added as time permits.

10. **CALL Newsletter No. 89-2: Heavy - Light - August 1989**

Protecting the force is especially critical to light units and requires additional attention to survivability and counterfire programs to reduce the effects of enemy indirect fires.

Without properly prepared positions and cover, the light forces are more vulnerable to the effects of indirect fires than heavy forces. To reduce unnecessary losses of light forces to indirect fires, counterfire operations are essential.

Light forces must rely on the longer range weapons of the heavy division or corps to attack enemy indirect fire systems.

The target acquisition assets available to the light force from its parent unit are limited and cannot provide sufficient coverage for the entire force. The heavy force must create the target acquisition umbrella over the light force if they are to be protected.

11. **CALL Newsletter No. 89-4: Corps/Division - November 1989**

Battlefield Clutter

Positive action must be taken to disseminate obstacle (friendly and enemy) and NBC contaminated areas to every corner of the organization. Consider establishing a "CINC" battlefield clutter responsible for:

- Maintaining a consolidated chemical, barrier, obstacle overlay with the locations of all battlefield clutter regardless of source.
- Ensuring that copies of the overlay are disseminated to all staff, subordinate, adjacent, and higher units (maneuver and log) on a regular basis.
- Ensuring the overlay is considered during planning and in updating IPB products.

12. CALL Newsletter No. 90-8: Winning In the Desert II - September 1990**Reverse Slope**

The use of reverse slope takes on added importance in the desert. Concealment is hard to achieve in the desert. Use of reverse slope positions will deny the enemy direct observation of positions until he is within range of direct fire weapons.

Soil Conditions

The soil conditions in a desert environment present special problems for earthwork for the engineer. It is important to immediately perform earthwork upon arrival to allow equipment operators and supervisors to determine optimum equipment, methods, and special requirements. Required effort, time, and effectiveness can then be evaluated for obstacles, positions, etc., that are unique to that area.

Chemical

Wearing rubber gloves and boots in hot weather causes many problems. The hands, which are the least susceptible parts of the body to chemical exposure, quickly become soft making them very susceptible to chemical exposure and mechanical injury. The feet also become soft, but can develop a host of other related problems such as trench foot. Do not wear rubber gloves or boots in desert warfare unless direct exposure to liquid mustard agent is imminent. Find clean areas to get relief from wearing rubber gloves and boots before softening of the hands and feet, as well as other associated medical problems, set in.

In most cases, overreaction to the chemical threat is worse than underreaction. Wearing the MOPP suit in hot desert temperatures as a precautionary measure to impending chemical attacks can result in more casualties, including death, than a chemical attack would produce. Unless the chemical attack is a direct hit on one's location (most won't be), there is adequate time to assume a MOPP posture if MOPP gear is readily available. Always operate at minimum MOPP levels. Accept risk in the chemical defense business just as with any other aspect of warfare. Expect a fair share of chemical casualties along with other conventional casualties. Don't win the chemical survival battle and lose the tactical battle.

Leaders have a tendency to not delegate authority while in MOPP gear and try to do too much themselves. Consequently, they become the first to fall out due to sheer exhaustion. Err on the side of overdelegation during periods where MOPP gear is worn.

Contamination problems can be greatly reduced if the clothing is immediately removed from all chemical casualties. It is unlikely that chemical casualties will have significant quantities of liquid contaminates on their skins as most will be present on their clothing. This will greatly facilitate moving chemical casualties through medical channels. Cutting it off is recommended.

LESSONS LEARNED INTEGRATED INTO CCF 24 TASK LIST

PLANNING

1. **Direct and Lead Task Force During Planning for the Battle**
2. **Receive Order From Higher Headquarters**
3. **Conduct Mission Analysis**
4. **Issue the Warning Order**
5. **Commander Issues Guidance**
6. **Prepare Staff Estimates**

a. Conduct terrain analysis.

Prepare intelligence estimate.

Develop reconnaissance and surveillance plan.

The soil conditions in a desert environment present special problems for earthwork for the engineer. It is important to immediately perform earthwork upon arrival to allow equipment operators and supervisors to determine optimum equipment, methods, and special requirements. Required effort, time, and effectiveness can then be evaluated for obstacles, positions, etc., that are unique to that area.

b. Integrate engineer effort.

Conduct survivability analysis.

Prepare engineer estimate/annex.

Positive action must be taken to disseminate obstacle (friendly and enemy) and NBC contaminated areas to every corner of the organization. Consider establishing a "CINC" battlefield clutter responsible for:

- Maintaining a consolidated chemical, barrier, obstacle overlay with the locations of all battlefield clutter regardless of source.
- Ensuring that copies of the overlay are disseminated to all staff, subordinate, adjacent, and higher units (maneuver and log) on a regular basis.
- Ensuring the overlay is considered during planning and in updating IPB products.

There are never enough engineers. Integration of engineer planning into the defensive troop leading procedures is a key element to the efficient and effective employment of engineers. The task force engineer must quickly brief his hasty engineer estimate in clear and concise terms that the commander understands. The commander must provide the engineer with priorities by specific task. Finally, responsibility for obstacles/positions must be a command responsibility, not just an engineer problem.

The engineer helps the commander complete his estimate by briefing engineer capabilities and needs, recommended employment, and brigade directed targets. Needs are shown as additional haul capability (trucks required) and Class IV/V shortage.

Employ Engineer Execution Matrices: Engineer execution matrices and clear detailed commander's guidance, continually monitored by the TOC/command group assures that responsibility stays fixed and receives command emphasis.

c. Develop fire support plan.

Without properly prepared positions and cover, the light forces are more vulnerable to the effects of indirect fires than heavy forces. To reduce unnecessary losses of light forces to indirect fires, counterfire operations are essential.

Light forces must rely on the longer range weapons of the heavy division or corps to attack enemy indirect fire systems.

The target acquisition assets available to the light force from its parent unit are limited and cannot provide sufficient coverage for the entire force. The heavy force must create the target acquisition umbrella over the light force if they are to be protected.

d. Determine CSS requirements.

Concurrent with the warning order push standard logistics packages to subordinates. Don't wait for the OPORD or subordinate requests. Transportation is scarce and CL IV/V mission loads are enormous. S4s determine unique logistics requirements based on standard missions (such as offense or defense) in garrison. Then they organize standard (SOP) means to transport and distribute this materiel. During operations they:

- Conform higher push packs on receipt of higher warning order.
- Allocate these push packs to subordinates IAW SOP.
- Request throughput of additional required materiel to lower echelons based on the OPORD, planning refinements and subordinate requests.

e. Integrate NBC effort.

Provide NBC estimate.

7. Staff Develops Course of Action

8. Staff/CDR Analyze Course of Action

c. Establish engineer priority of effort.

The commander must provide the engineer with specific guidance to include priorities by task, intent, and coordination.

d. Conduct MOPP analysis.

Wearing rubber gloves and boots in hot weather causes many problems. The hands, which are the least susceptible parts of the body to chemical exposure, quickly become soft making them very susceptible to chemical exposure and mechanical injury. The feet also become soft, but can develop a host of other related problems such as trench foot. Do not wear rubber gloves or boots in desert warfare unless direct exposure to liquid mustard agent is imminent. Find clean areas to get relief from wearing rubber

gloves and boots before softening of the hands and feet, as well as other associated medical problems, set in.

In most cases, overreaction to the chemical threat is worse than underreaction. Wearing the MOPP suit in hot desert temperatures as a precautionary measure to impending chemical attacks can result in more casualties, including death, than a chemical attack would produce. Unless the chemical attack is a direct hit on one's location (most won't be), there is adequate time to assume a MOPP posture if MOPP gear is readily available. Always operate at minimum MOPP levels. Accept risk in the chemical defense business just as with any other aspect of warfare. Expect a fair share of chemical casualties along with other conventional casualties. Don't win the chemical survival battle and lose the tactical battle.

f. Plan survivability operations.

Detailed defensive planning must be done on the ground. Quality weapon and obstacle positions surprise the enemy from unexpected locations. Whenever possible, positions and routes in and out should be set in (not just checked later) by leaders looking at them from the locations where the enemy is to be engaged.

Especially in open terrain, survivability positions are normally more important than anti-tank ditches. A tank platoon properly dug into two step positions can destroy a battalion. As such, earthmoving assets normally focus initially on survivability.

The use of reverse slope takes on added importance in the desert. Concealment is hard to achieve in the desert. Use of reverse slope positions will deny the enemy direct observation of positions until he is within range of direct fire weapons.

Reverse slope positions provide excellent cover from long range direct fires and an edge in killing the enemy. If the enemy comes over your hill, you can shoot him in the belly plate before he can get his guns depressed far enough to shoot back. If the enemy bypasses your hill, you will be in a good position to fire and maneuver into his flank and rear.

Fire creates security, forces the enemy to deploy, and increases the surprise of an obstacle. To maximize synchronization of obstacles and fire, place obstacles where fire is already effective.

Protecting the force is especially critical to light units and requires additional attention to survivability and counterfire programs to reduce the effects of enemy indirect fires.

9. Staff Compares Courses of Action

10. Commander Announces Decision

11. Staff Prepares OPORD/FRAGO

12. Issue the OPORD/FRAGO

Clear written orders greatly reduce the fog of war to tired leaders. They provide a checklist for exhausted leaders to remind themselves what their mission and commander's intent really

is. Execution matrices, similar to the fire support execution matrix, are a method to simply portray the plan in a concise manner.

13. Refine the Plan

14. Perform reconnaissance and surveillance

15. Perform counter reconnaissance actions

Commanders can provide security to the force by countering the enemies reconnaissance efforts and maintaining aggressive local security. The S2 plans and executes counterreconnaissance in coordination with the S3 and the entire staff. The S2 cannot delegate the security effort to the companies. A centralized counter-reconnaissance plan is critical to success.

Detect enemy reconnaissance effort by employing multiple security elements and systems to provide depth to the counter-reconnaissance effort. Place more than one surveillance asset on each avenue of approach.

16. Maintain operations security

PREPARATION

17. Command Group Conducts and Receives Briefings

18. Command Group/Command Posts Monitor, Supervise, and Direct Execution of Force Protection Operations and Activities

19. Command Group/Command Posts Monitor, Supervise, and Direct TF Mission Preparation

20. Commander, Commander's Representatives, and Staff Conduct Inspections and Visits

21. Task Force Conducts Rehearsals

22. Task Force Plan Modified and Refined

- b. Disseminate intelligence and combat information.**

Positive action must be taken to disseminate obstacle (friendly and enemy) and NBC contaminated areas to every corner of the organization. Consider establishing a "CINC" battlefield clutter responsible for:

- Maintaining a consolidated chemical, barrier, obstacle overlay with the locations of all battlefield clutter regardless of source.
- Ensuring that copies of the overlay are disseminated to all staff, subordinate, adjacent, and higher units (maneuver and log) on a regular basis.
- Ensuring the overlay is considered during planning and in updating IPB products.

23. **Command Post (TAC, TOC, CTCP) Operations**
24. **Liaison and Coordination with Higher, Adjacent, Supported, and Supporting Elements**
25. **Command Group/Command Posts Position to Control the Battle**
26. **Prepare for combat**
27. **Position Forces**
 - a. **Maneuver forces.**

Correct positioning allows tanks and TOWs to both survive and kill. Surviving is the key and is a function of two factors: (1) avoiding detection by the enemy; and (2) if detected, moving securely to a different firing position.
 - b. **Air defense elements.**

Another means of increasing the survivability of a Stinger team is to dig them in with adequate overhead cover during defensive operations. It is the responsibility of the SHORAD platoon leader to ensure that his Stinger assets are dug in.

In the defense, Stinger crews must get out of the tracks and into firing positions away from company teams.
 - c. **Engineer elements.**

Mass engineer headquarters forward: Habitually employ an engineer company headquarters with each committed battalion task force and involve them in the planning process.
28. **Control engineer assets**

In most cases, survivability positions should be prioritized over AT ditches. Regardless of general priorities, a specific schedule of work for each piece of earth moving equipment must be established. Use of limited blade assets is so critical that battalions should give maintenance priority to that equipment. Appointing a "Dozer CINC" — an individual who coordinates the movement, refueling, and other care of bulldozers — is a good idea. The

function is so important that it is not inappropriate to give that responsibility to the Command Sergeant Major or S-3 Air.

Fix Responsibility For Engineer Effort With Maneuver Commanders: Responsibility for success or failure ultimately resides with the maneuver commander. Both engineer and maneuver elements execute engineer tasks. Regardless of who does the work, the task supports a maneuver commander's plan. The simplest method to coordinate intent, logistics support, work party security, siting, etc. is to give the mission to a maneuver company commander and assign engineer support as required.

Positions cannot be dug in until company, platoon, and individual vehicle positions are verified on the ground by the engineer and commanders.

Commanders and engineers must both be responsible for obstacles and positions. The engineers have the technical knowledge to do the work but the maneuver leader must site the obstacle/position to support the defensive plan. Commanders must be primarily responsible for the obstacles/positions to improve their effectiveness.

Jointly and physically site all engineer work: The maneuver commander must site the engineer work with the engineer present to avoid ineffective positioning.

The chain of command must select the location of fighting positions. The position must be checked by a vehicle to ensure adequate coverage of assigned sectors. The units' leaders must supervise construction to ensure that the position is the right depth before letting the bulldozer move.

29. Prepare fighting positions

Since infantry can dig themselves in, normally the infantry works on digging in before assisting the engineers emplace mines etc. Once the task force completes crew served positions with overhead cover they reinforce the engineer soldiers emplacing obstacles to the maximum extent possible.

Employ "basic loads" of Class IV (sand bags, pickets, etc.) with all vehicles to expedite rapidly digging in. The S-4 pushes forward replacement basic loads during transition to the defense in standard infantry platoon packages.

Armored personnel carriers must carry a basic load of materials for individual and crew fighting positions.

Employ reverse slopes as much as possible and camouflage frontal parapets for individual/crew positions. This avoids the obvious bunker positions easily seen and destroyed by direct fire.

Ensure all maneuver/engineer leaders and heavy equipment operators drill the correct construction of fighting vehicle positions at home station. This is an excellent NCODP, ODP, or concurrent training station.

Integrate engineers into all defensive training to build teamwork and identify the myriad of small problems which hamper execution. All fighting vehicle crews, engineer equipment operators and their supervisors must know how to construct vehicle fighting positions. Construction of vehicle fighting positions is so decentralized that repetition of established drills is essential.

Ensure that individuals pick fighting positions which make the most of natural cover and concealment and offer good fields of fire. Leaders at all levels should double check these

locations. Once a suitable site is selected, the priority goes to concurrently digging, clearing fields of fire, and camouflaging. Overhead cover and connecting trenches are added as time permits.

A properly dug in platoon can readily take out a battalion; therefore, maneuver leaders must supervise the construction of fighting vehicle positions. Full turret defilade or a covered route to a full hide/defilade is absolutely required. The position must be sloped and berms must be avoided.

Either a full turret defilade or a hide position is an essential, not a desirable, feature of the position. The "firing step" must be sloped so the firing vehicle may adjust its degree of hull defilade to allow various combinations of defilade and fields of fire. Construction of proper fighting positions which allow the defender to properly disperse weapons is essential to the defense.

Use a full hide position if at all possible and stay in it until the enemy is in the area where you plan to kill him. A prone or dug-in observer forward gives a much smaller signature than a tank, even one that is in a good firing position.

Have a backdrop and avoid anything that catches the eye. Hilltops are death traps.

Position to the flank of an enemy approach and behind frontal cover. It is far easier for an attacker to acquire and kill targets to his front than those to his flank or rear.

Have covered routes into and out of firing positions.

The guideline of 75 meters or more between primary and alternate tank positions is clearly correct. Dispersion is also needed between wingmen. The greater the separation, the less likely that both will be suppressed and that detection of one will give the other away. Depth is also critical. Linear deployment almost always loses.

Do not construct berms. More than 20 feet of dirt is needed to be effective against a modern APFSDS round -- clearly impractical. They also make it easier for the attacker to spot the position.

The chain of command must select the location of fighting positions. The position must be checked by a vehicle to ensure adequate coverage of assigned sectors. The units' leaders must supervise construction to ensure that the position is the right depth before letting the bulldozer move.

Use of backhoes and scoop loaders greatly reduces construction time for dismounted fighting positions. Construction of fighting positions for dismounted infantry should receive a high priority due to their vulnerability to indirect fire.

Squad APCs must by SOP carry a basic load of materials required to construct overhead cover. Construction of infantry fighting positions must be carefully monitored to ensure that soldiers can both effectively fight and observe while protected by overhead cover.

30. Prepare protective positions

31. Avoid enemy NBC operations

32. Perform combat service support operations

Think "OCOKA". S4s and other CSS officers can enhance their survivability through careful terrain analysis of proposed locations. Look for terrain that you can easily defend and reinforce with hasty obstacles. Avoid obvious armor and helicopter avenues of approach. Lay out the trains with an eye towards security, defense, rapid dispersion, and withdrawal.

The commander must consider allocating survivability assets to the FSB based on the factors of METT-T. The majority of the FSB's equipment is thin skinned and highly vulnerable to all types of fires, small arms to artillery. A breakthrough by an MRP can pose a threat to the BSA of disproportionate magnitude. A single tank could lay waste to an entire FSB.

Engineer support, air defense coverage, and an allocation of more tank killing systems (Vipers and Dragons) could significantly enhance the survivability of the FSB. Terrain allocation for the BSA should maximize existing cover, concealment, and access to ingress/egress routes. Artillery fire support should be included in the FSO's priorities and updated as the tactical situation changes. Also, combat power should be allocated (on order) to defend the BSA.

Train CSS officers to think tactically: We train combat arms officers to look at a piece of ground and envision fields of fire, avenues of approach, and key terrain. CSS officers, who have not received equivalent training, look at the same piece of ground and see a parking lot.

Train CSS soldiers better in individual soldier skills: The quality of fighting positions usually depends on the imagination of the soldier digging it because neither he nor his supervisors have been trained to construct them properly. The same goes for land navigation, first aid, and chemical defense. Trained soldiers kill; untrained soldiers die.

All CSS players focus on pushing their services forward without waiting for a unit request. An example of a push supply system is sending forward NBC filters and protective over-garments without a unit request after a chemical attack.

Request throughput of additional required materiel to lower echelons based on the OPORD, planning refinements and subordinate requests.

Blood agents break down mask filters, rendering them ineffective. S-4's must have replacement filters planned for and prepositioned for quick exchange in case of exposure.

33. Prepare troops for combat

MOPP gear obviously degrades performance, but it is not a show stopper for well trained units.

Digging in, laying mines, stretching wire, and filling sandbags are tiring activities under the best of circumstances. When combined with the effects of heat, cold, sustained/fast paced operations, and MOPP, they become even more exhausting. Soldiers and leaders fall asleep and the enemy penetrates the unit.

Leaders have a tendency to not delegate authority while in MOPP gear and try to do too much themselves. Consequently, they become the first to fall out due to sheer exhaustion. Error on the side of overdelegation during periods where MOPP gear is worn.

34. Prepare for NBC operations

Our chemical defense equipment works well when used by units with discipline, knowledge, and motivation. A systematic rather than a decentralized piecemeal integration of equipment is key. As an example, the company must plan the placement of its M-8 chemical alarms to provide coverage for alternate and supplementary as well as primary positions. Also, repositioning must occur as weather conditions change.

EXECUTION

- 35. TF command posts locate where they can control the battle**
- 36. TF Commander sees the battlefield**
- 37. TF commander directs and leads the execution phase**
- 38. TF command posts track and support the battle**
- 39. TF conducts battlefield update (METT-T based)**
- 40. TF conducts the decision making process (accelerated)**
- 41. Task Force Consolidates, Reorganizes, and Prepares to Continue the Mission**
 - c. Control and conduct evacuation.**

Contamination problems can be greatly reduced if the clothing is immediately removed from all chemical casualties. It is unlikely that chemical casualties will have significant quantities of liquid contaminates on their skins as most will be present on their clothing. This will greatly facilitate moving chemical casualties through medical channels. Cutting it off is recommended.
- 42. Move tactically**
- 43. Take action at halts**
- 44. Perform NBC operations**

MOPP decisions, to include unmasking, should be made at the task force TOC after a thorough risk assessment. Just because a M-256 kit indicates an "all clear" in the company area does not mean it is safe to unmask. Contaminates may remain just upwind in another area.

The Company NBC NCO should be forward with either the commander or XO. He cannot perform his battlefield duties from the field trains. This requires on the spot knowledge of terrain and conditions.

Blood agents break down mask filters, rendering them ineffective. S-4's must have replacement filters planned for and prepositioned for quick exchange in case of exposure.

All units, regardless of command relationship, operating in the task force sector should monitor at least one of the TF nets for NBC warnings. The task force should issue warnings on command, A/L and fire support nets to ensure the widest possible dissemination.

Getting NBC warnings to elements not organic or attached to companies requires the use of all battalion nets, to include admin/log and mortar FDC. Each element in the task force area must monitor at least one battalion net, regardless of the support or command relationship.

Formal NBC reports should not be transmitted on battalion and company command nets due to their disruptive nature. The preferred procedure is for platoons and companies to send initial spot reports on the command net, followed by NBC reports on the admin/log net.

Transmission of messages under the NBC reporting System can be reduced by:

- Users fully understanding the intent of the system and why certain reports are essential. The system is designed as a means of disseminating intelligence; not to jam nets with an almost continuous flow of NBC reports.
- Submitting only the essential line items of information.
- Using alternate nets to submit lengthy reports.
- Developing clear, concise instructions in unit SOPs which specify the abbreviated reporting procedures.

45. Protect force from enemy NBC operations

MOPP posture decision, to include when to unmask, must be made at battalion level — the first level with the staff to make a, risk assessment.

46. Operate in NBC contaminated areas

47. Perform hasty decontamination

48. Employ smoke

The effectiveness of smoke varies markedly with the weather. Although smoke does provide protection, it can turn on an attacker. If it blows away or when an open area is encountered, the attacker is suddenly exposed. A massed formation silhouetted against smoke is a great target.

49. Mark and report obstacles

CCF 24
CRITICAL TASKS AND OTHER LINKAGES

<u>TASKS</u>	<u>OTHER LINKAGES</u>
1. Direct and Lead Task Force During Planning for the Battle	
a. Initiate preparation and troop leading procedures	Platoons <ul style="list-style-type: none"> — Platoon Leader issues W.O., MTP Task 7-3/4-1046-4 — Issue Warning Order, Task 071-326-5502
3. Conduct Mission Analysis	
6. Prepare Staff Estimates	
a. Conduct terrain analysis Prepare intelligence estimate Develop reconnaissance and surveillance plan	
b. Integrate engineer effort Conduct survivability analysis Prepare engineer estimate/annex	— Prepare an engineer evaluation of terrain, MQS Task 01-1960.12-0008 <ul style="list-style-type: none"> — Analyze terrain using OCOKA, Task 071-331-0820
c. Develop fire support plan	— Plan for use of supporting fires, Task 071-410-0020
d. Determine CSS requirements	Platoon <ul style="list-style-type: none"> — Requests CS and CSS required to execute tasks, MTP Task 7-3/4-1046-22
e. Integrate NBC effort Provide NBC estimate	
8. Staff/CDR Analyze Course of Action	
a. Plan scheme of maneuver	
b. Organize for combat	
c. Establish engineer priority of effort	
d. Conduct MOPP analysis	
e. Plan for NBC operations	
f. Plan survivability operations	
9. Staff Compares Courses of Action	

<u>TASKS</u>	<u>OTHER LINKAGES</u>
13. Refine the Plan	
14. Perform reconnaissance and surveillance	<p>Platoons</p> <ul style="list-style-type: none"> — Perform route, zone, area recon, MTP Tasks 17-3-1017, 1018, 1019; MTP Tasks 7-3-1059, 1042, 1043 <p>Platoon Leaders/Platoons</p> <ul style="list-style-type: none"> — Conduct a recon patrol, MQS Task 03-3164.00.0005 — Read and use a map, navigate with map and compass, Tasks 071-329-1000 thru 071-329-1019
16. Maintain operations security	<ul style="list-style-type: none"> — Use tactical operations codes and numerical cipher/authentication system, Tasks 113-573-4003, 4006 — Recognize ECM and implement ECCM, Task 113-573-6001 — Practice noise, light and litter discipline, Task 071-331-0815
19. Command Group/Command Posts Monitor, Supervise, and Direct TF Mission Preparation	
20. Commander, Commander's Representatives, and Staff Conduct Inspections and Visits	
a. Conduct pre-combat checks	<p>Platoon Leaders/PSGs</p> <ul style="list-style-type: none"> — Platoon conducts readiness, maintenance, and functional checks, MTP Task 7-3/4-1046/5 — Perform precombat checks, MTP Tasks 17-3-0102, 1033 — Conduct troop leading procedures, MTP Task 05-3-1018
21. Task Force Conducts Rehearsals	<p>Platoon</p> <ul style="list-style-type: none"> — Perform rehearsals, MTP Task 17-3-1034 <p>Platoon Leaders</p> <ul style="list-style-type: none"> — Conduct rehearsal, MTP Task 7-3/4-1046/14
22. Task Force Plan Modified and Refined	
a. Verify IPB product	
b. Disseminate intelligence and combat information	
26. Prepare for combat	<p>Platoon Leaders, squad leaders</p> <ul style="list-style-type: none"> — Issue orders and FRAGOs, MTP Task 7-3/4-1046/18, 1046/19; Task 071-326-5055

<u>TASKS</u>	<u>OTHER LINKAGES</u>
	Platoon Leaders - Conduct briefbacks, MTP Task 7-3/4-1046/14
27. Position Forces	
a. Maneuver forces	Platoon/Platoon Leaders - Platoon Leader assigns positions, MTP Task 7-3/4-1021-3,4,8,16 - Designate primary, alternate, and supplementary firing positions, Task 071-326-5761 - Establish tank firing positions, Task 171-123-1008 - Select fighting positions for M47 medium antitank weapon, Task 071-317-3324 - Occupy a TOW firing position, Task 071-316-2550
b. Air defense elements	
c. Engineer elements	
28. Control engineer assets	
29. Prepare fighting positions	Platoon - Squad Leaders adjust initial positions, MTP Task 7-3/4-1021/18 - Supervise construction of fighting positions, MQS Task 03-3150.00-0005, Task 071-326-5704 - Engineers supervise construction of tracked vehicle fighting position, MQS Task 01-1950.00-0004 - Construct individual fighting position, Task 071-326-5703 - Construct crew served weapons positions, Task 071-312-3004, 071-052-0003 - Operate earthmoving equipment - Prepare individual and crew served weapons positions during MOUT, Task 071-326-0550 - Camouflage yourself, equipment, and defensive position, Tasks 051-191-1361, 1362, 051-202-1363
30. Prepare protective positions	
31. Avoid enemy NBC operations	
32. Perform combat service support operations	Platoon Leaders/Platoons - Conduct sustainment operations, MTP Task 7-3/4-1058
34. Prepare for NBC operations	Platoons - Prepare for NBC attack, MTP Task 7-3/4-1050, 1051

TASKSOTHER LINKAGES

- Use and maintain M8 or M8A1 Chemical Agent Alarm, Task 031-503-2008
- Use and maintain AN/PDR-27 and IM-174 radiac equipment, Task 031-503-3013, 031-505-1011
- Plan for and supervise positioning of Automatic Chemical Agent Alarm System setup, Task 031-503-4002

35. TF command posts locate where they can control the battle

- b. Maintain communications
 - Send a radio message, Task 113-571-1016
 - Use automated CEOI, Task 113-573-8006

37. TF commander directs and leads the execution phase

- a. Execute fire support

Platoon/Platoon Leaders (indirect fire)

 - Employ fire support, MTP Task 7-3-1006
 - Call for/adjust indirect fire support, Task 061-283-6003
 - Locate target by grid coordinate, Task 061-283-1002

Platoon/Platoon Leaders (direct fire)

 - Overwatch/support by fire, MTP Task 7-3/4-1007
 - Control organic fires, Task 071-410-0019
 - Engage targets with main gun, TOW, or 25 mm auto gun, Tasks 171-129-1020, 171-126-1036, 071-316-3006, 071-314-0012
 - Read and use a map, navigate with map and compass, Tasks 071-329-1000 thru 071-329-1019
 - Recognize friendly & threat armored vehicles, Task 878-920-1001

Platoon

 - Defend against air attack, MTP 7-3/4-1027/3, 1027/4
 - Plan for use of supporting fires, Task 071-410-0020

b. React to enemy air attack

c. Integrate fire support with scheme of maneuver

38. TF command posts track and support the battle

39. TF conducts battlefield update (METT-T based)

- a. Conduct battlefield update

<u>TASKS</u>	<u>OTHER LINKAGES</u>
40. TF conducts the decision making process (accelerated)	
41. TF consolidates and reorganizes	
a. Consolidate and reorganize	Platoon/Platoon Leader <ul style="list-style-type: none"> - Consolidate & reorganize after the attack, MQS Task 01-3152.00-0018 - Consolidate & reorganize following enemy attack while in the defense, Tasks 071-430-0007, 0008
42. Move tactically	Platoon Leaders/Platoons <ul style="list-style-type: none"> - Move tactically, MTP Task 7-3/4-1025 - Conduct terrain driving & operate vehicle during darkness, MTP Task 7-3/4-1062/5, 1062/12 - Navigate using map & compass, MQS Task 03-3120.00-0001, Task 071-329-1000 thru 1019 - Move as a member of a fire team, Task 071-326-0501 - Navigate while mounted, Task 071-329-1030 - Direct driver over a terrain route, Task 071-326-3001 - Move under direct fire, Task 071-326-0502 - Evade enemy antitank missiles, Task 171-123-1012 - React to indirect fire, Task 071-326-0510
43. Take action at halts	Platoon <ul style="list-style-type: none"> - Select temporary fighting positions, Task 071-326-0513 - Select and overwatch position, Task 071-326-5606 - Select hasty firing positions during MOUT, Task 071-326-0557
44. Perform NBC operations	<ul style="list-style-type: none"> - Recognize and react to NBC hazard, Tasks 031-503-1018, 1019 - Use M8/M9 detector paper to detect and identify chemical agent, Task 031-503-1014, 1020 - Use M256/M256A1 chemical detector kit, Task 031-503-3001 - Mark NBC contaminated area, Task 031-503-1021
45. Protect force from enemy NBC operations	<ul style="list-style-type: none"> - Put on and wear MOPP gear and M-17/24/25 protective mask, Task 031-503-1002, 1012, 1015

TASKS

46. Operate in NBC contaminated areas

47. Perform hasty decontamination

48. Employ smoke

49. Mark and report obstacles

 a. Mark a minefield

 b. Report obstacles

OTHER LINKAGES

- Place NBC system/gas particulate filter unit into operation on M1/M1A1 tank, Task 171-126-1052, 1067
- Operate the NBC system on M2A1/M3A1 BFV, Task 071-324-6026
- Maintain and operate NBC system on M113 family of vehicles, Task 071-212-0017
- Decon self and personal equipment, Task 031-503-1007

Platoons

- Cross a nuclear/chemical contaminated area, MTP Tasks 7-3/4-1052 & 7-3/4-1077
- Decontaminate equipment using NBC M11 or M13 decontamination apparatus, Task 031-503-1022, 2002
- Exchange MOPP gear, Task 031-503-1023

ENHANCE PHYSICAL PROTECTION

REFERENCES

FMs

3-3 Chemical and Biological Avoidance, November 1992

3-4 NBC Protection, October 1992

3-5 NBC Decontamination, June 1985

3-7 NBC Handbook, September 1990

3-100 NBC Defense, Chemical Warfare, Smoke, and Flame Operations, May 1991

3-101 Chemical Staffs and Units, April 1987

5-100 Engineer Combat Operations, November 1988

5-103 Survivability, June 1985

34-2-1 Tactics, Techniques, and Procedures for Reconnaissance and Surveillance and Intelligence Support to Counterreconnaissance, June 1991

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71-1 The Tank and Mechanized Infantry Company Team, November 1988

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5-145-11-MTP Mission Training Plan for the Combat Engineer Platoon, Heavy Division, Feb 89

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Other Related Sources

Combined Arms Battle Tasks: Battalion Task Force - Deliberate Attack, Hasty Attack, Movement to Contact, and Defend

Combined Arms Battle Tasks: Company Team - Deliberate Attack, Hasty Attack, Movement to Contact, and Defend

Combined Arms Battle Tasks: Platoon - Deliberate Attack, Hasty Attack, Movement to Contact, and Defend

Published Lessons Learned

NTC Commander's Memorandum - November 1985

CALL Newsletter No. 1 Seven Operating Systems - January 1986

CALL Newsletter No. 2 Intelligence - May 1986

CALL Newsletter No. 3 Combat Support Systems - September 1986

CALL Newsletter No. 4 Command and Control System - February 1987

CATA Commander's Comments, The CS Team - May 1987

CALL Newsletter No. 5 Leadership - July 1987

CALL Newsletter No. 88-3: Heavy Forces - Fall 1988

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CALL Newsletter No. 89-2: Heavy-Light Lessons Learned - August 1989

CALL Newsletter No. 89-4: Corps/Division - November 1989

CALL Newsletter No. 90-8: Winning in the Desert II - September 1990